Recreation Programming for Visually Impaired Children and Youth

EDITOR
JERRY D. KELLEY

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Recreation Programming for Visually Impaired Children and Youth

Jerry D. Kelley, Editor

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pose training project that should result in better trained personnel to deliver recreation services to the visually impaired across the nation. As project officer, I am pleased to be a part of this worthwhile effort.

William A. Hillman, Jr.
Project Officer
Office of Special Educational Rehabilitation
United States Department of Education

Foreword

"Me, too, me too!" expresses the yearning of most blind and visually impaired children as they seek their share of life's opportunities. Not only do they want a good education and an equal opportunity for future employment, but they also seek fulfillment during their leisure hours.

For the very young, playtime for both learning and fun constitutes a major portion of their days. This is as true for visually impaired childen as it is for all children. By school age, through play and formal instruction, most visually impaired children have learned to take care of their basic personal needs and have found acceptance within the family unit. In addition, they have gained skills that give them greater independence and freedom of movement away from the home.

As the requirements of formal education expand with the maturity of the child, the free time available for recreation decreases. Care must be taken so that the small amount of leisure time that is available is not wasted.

All would agree that an education is essential to understanding and learning to live in the world around us. It is also essential, however, to recognize the importance of play and recreation, for it is the recreational environment that provides unique opportunities for social growth and development unmatched in any other sphere of life.

What is true for the sighted child is also true for the blind or visually impaired child. Children who are not allowed to play freely with their sighted peers are being deprived of important and meaningful avenues for learning about themselves in relation to others and the world in which they live.

At its fullest potential, recreation provides a milieu in which the total personality can be brought into play, one in which the participants can begin to develop strong, sturdy bodies, skills of various kinds, and an awareness of the pleasure of sharing with, contributing to, and receiving from the members of a group.

The current literature on adjusting to blindness or visual impairment is primarily concerned with the importance of diagnosis, rehabilitation techniques, evaluation, counseling, and vocational training. Conspicuously absent are discussions on the role of recreation in the process of personal and social adjustment. These omissions continue even though visual loss is acknowledged to be as much a social disability as a physical one.

It is obvious that it is necessary to do more than talk about the gaps in the lives of blind and visually impaired children and youth. Visually impaired children, like their sighted peers, need to acquire recreation skills, experience the fun of playing together, and learn to work constructively with others. The more that can be done to encourage these normalizing behaviours, the more the child will learn to be an active member of the community—and the more the general public will begin to realize that blind and visually impaired children are individuals with the same desires as anyone else to be accepted, to excel, to be creative. Through the provision of recreation experiences, we can play an important part in helping the visually impaired child to become fully integrated into society.

Over the years, the American Foundation for the Blind (AFB) has made a major

commitment to the goal of improving the level of services for all blind and visually impaired citizens. Many of these efforts were directed toward programs serving children and youth. While much emphasis was placed on education, and particularly on the acquisition of employment skills, it has become apparent that a major area of learning and daily life was not being addressed. Many blind and visually impaired children, although they were attending classes with their sighted peers, were not participating in recreational activities in school or in the community.

Therefore, it seemed natural and desirable for the American Foundation for the Blind to address this problem. Over the years, many different approaches were tried. In 1968, under a grant from the Rehabilitation Services Administration, AFB convened a national conference for persons from the fields of blindness and recreation to analyze the potential for the employment of blind and visually impaired persons in the field of recreation. This conference resulted in the publication of a pamphlet, "Visually Handicapped Workers in Recreation Services," that has had substantial impact on public awareness regarding employment opportunities for visually impaired persons. Furthermore, the conference brought into focus several new areas of concern related to training, which subsequently led to further emphasis by AFB on how best to respond to the recreation needs of children.

In 1969, AFB conducted a demonstration workshop in the state of Ohio to facilitate the integration of blind and visually impaired children into the physical education and recreation programs of the Cleveland Public School system. The catalytic role played by the Foundation in bringing together physical educators, parents, and sighted and visually impaired children, as well as personnel working in recreation agencies and agencies serving blind persons, produced a model for collective community action which has been replicated throughout the country.

In 1972, AFB employed a specialist in training to ensure that newly developed training programs would be continued. The primary thrust of the training programs was to help the agencies serving young people to open their programs to blind and visually impaired children and youth. To this end, AFB staff worked with such organizations as the Boy Scouts, Girl Scouts, YM-YWCA's, 4-H, and Campfire Girls. A secondary, but important, outcome of the training programs was the development of instructional materials to train youth leaders and agency personnel in a variety of settings. Many of these materials were pilot-tested in a workshop on *Meeting the Social and Recreational Needs of Visually Handicapped Children and Youth* held in Atlanta, Georgia. The "Atlanta model" served as a prototype for training and had impact in increasing the understanding and awareness of youth leaders from many types of organizations.

In 1973, the Foundation convened a meeting of experts on visual impairment and on recreation to explore the utilization and training of recreation assistants to work with blind and visually impaired children in community recreation settings. AFB regional consultants then conducted workshops in five cities across the country to make recreation personnel aware of the needs of visually impaired children. More than 300 persons attended these sessions. It was their favorable response that led the Foundation to realize how great were the needs in this area.

One result of this was a film, *Out of Left Field*, structured around a panel discussion on the problems of integration and how to deal with them in which both sighted and visually impaired children participated. The film also shows blind children and youth taking part in various activities with their sighted peers.

In 1974, an intensive four-day meeting of therapeutic recreation educators was convened in St Louis in an effort to impact upon preservice training programs for

recreation professionals. A follow-up meeting held in New York in 1975 led to the development of training and instructional materials for colleges and universities.

While the above efforts were substantial in terms of time, commitment, and financial investment, and the materials produced were of great value to many educational programs, it became clear that the most prevailing need was for the training of personnel who provide recreation programs and services.

Since children and adults with visual impairment represent a relatively small segment of the total handicapped population and since they are usually scattered throughout large geographic areas, most community recreation personnel have had little if any experience with blindness or visual impairment.

However, the fact that there are no visually impaired children in a program does not necessarily mean that there are no visually impaired children in the community. Because in the past these children were often excluded from community services, it may never occur to parents to try to enroll their children in recreational programs. To change this situation, recreation specialists must be educated in community outreach to bring the visually impaired child into the local programs. A small cadre of experts at the national level is not sufficient to meet this goal; rather, a network of local, state, regional, and national experts is required. These experts must have an on-going commitment to the development of new training programs as well as up-grading those already in existence.

With financial assistance from the Office of Special Education and Rehabilitation, U.S. Department of Education, the American Foundation for the Blind has utilized its many resources to initiate and implement a national program to accomplish this task. This book is but one part of a total commitment to make community recreation programs available to visually impaired children and youth. If it leads to a greater understanding of the nature of blindness and visual impairment and of how the visually impaired child can function in a recreational setting and if this in turn results in a greater number of recreational opportunities for visually impaired children and youth, the project will have been, for me, a satisfying and worthwhile experience.

Marion V. Wurster
Project Director

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Marion V. Wurster
Project Director

PROJECT ADVISORY COMMITTEE

Mary K. Bauman
Association for the Education of the Visually Handicapped

Fred Humphrey, Ph.D.
University of Maryland

Karen Luxton
Baruch College

Anthony Montagnino
New Jersey Commission for the Blind

Geraldine T. Scholl, Ph.D.
University of Michigan

Julian U. Stein, Ph.D.
American Alliance for Health, Physical Education, Recreation and Dance

CURRICULUM DEVELOPMENT TEAM

Steve Anderson, Ph.D.
Indiana University

Monica Beliveau
New York City

Doris Berryman, Ph.D.
New York University

Marcia Carter, Ph.D.
University of Tennessee

Ann Corn
University of Texas

Beverly Hummel
University of West Virginia

Jean L. Kelley
Hood College

Karen Luxton
Baruch College

Iris Martinez
Staten Island, New York

Simone Rollin-Lazarus
American Foundation for the Blind, Inc.

David Park
National Park Service

Carol Ann Peterson, Ed.D.
University of Illinois

Lee W. Robinson
Austin, Texas

Gary M. Robb
Indiana University

Judith Rutberg
Hunter College

PROJECT STAFF—AMERICAN FOUNDATION FOR THE BLIND, INC.

Marion V. Wurster, Project Director

Simone Rollin-Lazarus, Project Coordinator

Mary Ellen Mulholland, Director, Publications and Information Services Department

Corinne Kirchner, Director, Social Research Department

Susan J. Spungin, Ed. D., Director, National Consultants Department

William F. Gallagher, Executive Director

William A. Hillman, Jr.
Project Officer
Office of Special Education and Rehabilitation
United States Department of Education

STATE COORDINATORS

Mary Carpenter
Colorado

Robin Jackson
Georgia

Steven Anderson &
Mark Laker
Indiana

Roxanne Howe-Murphy
Massachusetts

Lillian Hipp
Minnesota

Mary Douglas
Oregon

Ronald Reynolds
Virginia

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Introduction

Most people understand the importance of recreation in their everyday lives. They recognize that it is not only the activity but the attitude as well that brings a feeling of well-being and satisfaction to the human spirit. Recreation is essential to the individual's health, wellness, and sense of self-fulfillment. Most people would also agree, at least on the surface, that all persons are entitled to opportunities for the recreative experience. Yet, our nation's history shows that many people, particularly the handicapped and disabled, have often been excluded from their community recreation programs.

Out of fear, ignorance, prejudice, or perhaps simply lack of awareness, making recreation services available to the handicapped, and particularly the visually impaired, has never been one of society's major concerns. The decade of the '70s, however, witnessed a series of events that aroused a new awareness and commitment to all minority groups, including the handicapped. Indeed, public laws have mandated that disabled people be able to enjoy the same opportunities available to the general public.

Being able to deal positively and constructively with this mandate may well be the great challenge of the '80s. This would certainly seem to be the case insofar as the public recreation field is concerned. Becoming aware of the body of knowledge about disabled persons will certainly be an important aspect of dealing with the challenge ahead.

Recreation Programming for Visually Impaired Children and Youth is designed to explore the problems and answer many of the questions concerning the provision of recreation and services to visually impaired children and youth. Because the content reflects a massive body of knowledge from experts in at least two distinct fields of endeavor, vision and recreation, a good deal of decision-making was involved regarding what should be included in the text. Level and depth of the subject matter became cause for much discussion and debate, some of which was resolved as a result of requirements written into the federal contract that supplied a major portion of development costs. Other questions had to be resolved through the use of panels of experts or by field testing training components in a variety of workshop settings. Where differences of opinion were not totally resolved, the editor and project staff jointly made the final determination.

The primary audience for this book is the person in the role of a trainer or consultant. (This is not a book for the therapeutic recreation specialist who is engaged in treatment oriented programs, nor is it intended for the expert in the vision field.) However, this does not mean that the recreation leader, the camp counselor, the physical education instructor, the YMCA director, the special education teacher, or other activity-oriented workers cannot benefit from much of the content. It does mean that in some instances the depth and comprehensiveness of the discussion will be beyond that required for a minimal level of competence in recreation activity programming. For example, it may not be necessary to know the medical term for an eye disease in order to know how one might engage a visually impaired youngster in a recreation activity; it may only be necessary to have a general understand-

ing of the functional limitation and of safety precautions that should be observed. On the other hand, persons responsible for developing and conducting training programs might find themselves seriously handicapped without a general working knowledge of appropriate terminology.

A second point that the reader should be aware of is that the text is designed for working with the visually impaired child who has no other handicapping conditions. It does not attempt to deal with the many problems of the multiply handicapped child. While it is recognized that there are many children for whom visual impairment represents only one of two or more handicapping conditions, it was not possible to address all of these special needs in this text. (One rationale for this choice was the fact that many multiply handicapped children are currently being served by special schools for the blind. Where integration of these children into the community programs is possible, it usually requires the assistance of a rehabilitation professional with skills and experience beyond the level of most community recreation specialists.)

Through the previously mentioned consultation with experts and field testing several areas of content have emerged as priority concerns for recreation practitioners. They are philosophical and attitudinal considerations, understanding of visual impairments, skills in orientation and mobility training, recreation programming, working with parents, working with administrators, and resource utilization.

Chapter I presents an overview of the history of educational and recreational services to visually impaired persons, including the events that have led to federal legislation mandating a policy of integration. This information will provide recreation staff and administrative personnel with an understanding of why they now have public authorization to provide services to visually impaired children in their communities. The chapter also discusses attitudinal barriers that act as deterrents to full participation for visually impaired children and suggests ways to view children with visual losses more realistically, i.e., in terms of their capabilities.

Chapter II introduces the subject of vision: how the normal human eye works and the visual impairments most commonly found in children and youth. Here the most important factor is not the medical label but knowledge of how the child functions and how he can use his residual vision or other senses to participate in recreational activities. Teaching techniques that have been found effective with visually impaired children are also described.

Chapter III includes a discussion of orientation and mobility and ways in which the recreation specialist can facilitate the movement of a visually impaired child in a recreation setting. The recreation specialist will learn how to orient the child to the recreation area and how to act as a sighted guide. He will also learn the techniques a visually impaired child uses to move safely and gracefully through the environment. Staff training in these techniques will both increase the child's enjoyment of the activities and enable staff to work with visually impaired children in a more confident and comfortable manner.

Chapter IV discusses the development of programs in such a way as to include visually impaired children and youth and also deals with ways to facilitate their inclusion into existing programs. In addition to programming, types of activities, need for adaptation of the activity, and assessment of child's visual loss, conceptual development, and skill level, factors that allow the recreation specialist to determine appropriate activities for the child are also presented. In addition, this chapter suggests some teaching techniques and discusses how various types of visual loss affect recreation functioning.

Because an important part of the recreation specialist's job is to maintain contact with parents of visually impaired children and youth, Chapter V describes types of parents and parent reactions that may be encountered. Learning to understand a father's or mother's motivations, frustrations, fears, and needs will assist the recreation specialist in developing positive working relationships with parents.

Since it is the recreation administrator who most often holds the ultimate power to make decisions concerning expenditure of funds and distribution of resources to facilitate the integration of visually impaired children into the community programs, it is appropriate that a chapter be devoted to his special needs and concerns. Chapter VI looks at recreation programming from the administrator's perspective. Special consideration has been given to the topics of finance, safety, liability, and staff training.

Finally, Chapter VII provides further sources of information with annotated listings of resources at the national, state, and local levels.

The development of *Recreation Programming for Visually Impaired Children and Youth* has been an exciting and stimulating experience. Growing out of a sincere concern to improve the quality of life experiences for a population of children who have often been neglected, the authors have sought to bring a new awareness to persons in the recreation field and hope for the future to visually impaired children and their parents. As a reader of this book, you will have the opportunity to make this hope a reality.

Jerry D. Kelley, Editor

CHAPTER 1

Foundations and Basis of Recreation and Leisure Services for Blind and Visually Impaired Children

By Karen Luxton and Jerry D. Kelley

Society has long recognized the important contribution of play and recreation to the growth and development of children and youth. Most people would agree that involvement in recreation during the formative years of life has a significant, positive impact on basic health and fitness, intellectual growth and development, social and emotional adjustment, creativity, the potential for self-expression, and personal satisfaction and fulfillment.

This belief in the inherent virtues and values of recreational pursuits is reflected in the public and private dollars expended in programs and services to provide a variety of meaningful recreative experiences for individuals from the earliest stages of childhood to the threshold of adult maturity. Yet, the attention and resources directed toward the recreational needs and interests of disabled persons have been meager. A most notable gap has been in community recreation services for disabled children.

If community recreation services have been meager for the young disabled population in general, they have been almost nonexistent for blind and visually impaired youngsters. Blind children need the enjoyment and rewards available in healthy recreational outlets and opportunities; they need the associated cognitive, physical, and emotional development that evolves through play experiences and recreational activities.

The child who is blind or visually impaired may have much more unobligated time to fill than the child who is able-bodied and who has regular and spontaneous access to educational and social networks. One of the major purposes of organized recreation must be to offer avenues through which blind and visually impaired children and youth can participate in play activities that they find personally fulfilling and growth-producing.

The challenge for the future is to develop resources and services in the community and to train recreation specialists to work effectively in bringing about appropriate leisure opportunities. The goal must be to help make possible integration of blind and visually impaired children into the mainstream of society.

HISTORY OF SERVICE DELIVERY TO VISUALLY IMPAIRED PERSONS

Education

The mainstreaming of blind and visually impaired persons in this country, as in the rest of Western society, has been an evolutionary process. In the 18th century, a blind youngster was kept at home or put in an asylum as one who could not do useful work; thus, he could not make a meaningful contribution to the family. In the 1830's, when the first American schools for the blind began in Philadelphia, New York, and Boston, almost nothing was known about children with severe visual impairments and partial sight. They learned to function as best they could in their local schools with no special help; if the visual problem were severe enough, they had the option of going to one of the new special schools where they might learn braille.

In these schools it became clear that the youngsters' lack of sight did not necessarily reflect lack of intelligence or lack of interest in the world around them. Students were taught reading, writing, music, and handcrafts. Later, many schools established their own sheltered workshops so that their graduates could remain on as employees.

The special schools for the blind were a first step and were helpful in providing students with a chance to learn; however, they also established the idea that blind children and adults were somehow a group apart from the community at large and were therefore to be housed, taught, and cared for outside the home and away from brothers, sisters, parents, friends, and neighbors.

Samuel Gridley Howe, founder of the Boston School and a leader in educational methodology for blind children, was one of the first to acknowledge the dangers of this exclusionary approach. Late in his life, he told a group of educators that special schools for the blind did a serious disservice to their students by separating them from family and community (Koestler, 1976).

During the first quarter of the 20th century, many visually impaired individuals, after having learned braille and whatever other skills were considered to be important, returned to the public school system, where they were most successful. As a result of their successes, work on behalf of the blind population in this country began to accelerate dramatically. Service agencies concerned with visual impairment emerged, philanthropists contributed to the field, and, simultaneously, a branch of education that became known as special education was born. While not all public service professionals were ready to jump on the bandwagon, the field of education was beginning to acknowledge that disabled youngsters, in general, and visually impaired children, in particular, were entitled to an appropriate public education and were within its jurisdiction and part of its responsibility.

With the end of World War II, two phenomena that gave a major push to public awareness and acceptance of blind individuals into the mainstream occurred. One was the return home of large numbers of blinded veterans, individuals with lives already established, who did not see themselves as closed off or separate from the community. These were men who had been breadwinners and who needed to get back on the job or into school so that they could continue with their lives. It was these same veterans who gave the impetus to the U.S. rehabilitation movement and spurred development of techniques for teaching skills in mobility, cooking, grooming, and other areas that make possible safe travel and relatively smooth functioning.

The second event was the discovery that oxygen could be used as an important agent in saving the lives of premature babies. This occurred after medical science learned that a lack of oxygen to the brain often cost these delicate and vulnerable infants their lives. Thus, oxygen, in abundance, was given via the incubator. Only later was a connection made between the high level of oxygen and blindness in the

CHART I

Legislation Affecting Education & Recreation

1837	Ohio becomes the first state to make public provision for the education of visually impaired children. Ohio State School for the Blind is established.
1853	Massachusetts is the first state to require compulsory school attendance.
1858	The American Printing House for the Blind (APH) is established by the Kentucky Legislature.
1867	Congress creates a cabinet-level Department of Education (the law was repealed in 1868).
1879	Congress passes P.L. 45-186, an act "To promote the education of the blind." This is the first federal subsidy to provide braille books for the blind. American Printing House for the Blind receives an annual appropriation of funds.
1899	The first law requiring vision testing of school children is passed in Connecticut.
1904	P.L. 58-171 amends postal law to provide free mailing of reading matter loaned to blind persons.
1918	P.L. 65-178 provides physical and vocational rehabilitation for World War I veterans.
1919	P.L. 66-24 grants additional aid to American Printing House for the Blind.
1920	Three states provide supervision of special education.
1920	P.L. 66-236 (Vocational Rehabilitation Act of 1920) extends vocational rehabilitation benefits to civilians.
1927	P.L. 69-655 amends the Interstate Commerce Act to allow a blind person and sighted guide to travel for one fare.
1931	P.L. 71-787 (Pratt-Smoot Act) provides books for blind adults.
1934	P.L. 72-439 (Pratt-Smoot Act) is amended to include books in recorded form.
1935	President Franklin D. Roosevelt signs an executive order to the U.S. Treasury, allotting $211,500 in WPA funds to the Library of Congress for the development of the talking book machine.
1937	P.L. 75-37 provides for special postage rates for materials for blind persons.
1937	P.L. 75-184 amends the Interstate Commerce Act to allow dog guides to accompany blind persons in interstate travel.
1943	P.L. 78-113 (Barden-LaFollette Vocational Rehabilitation Act Amendments) amends the 1920 Vocational Rehabilitation Act, greatly increases rehabilitation services available to blind persons.
1947	Congress increases the appropriation to Library of Congress for reading materials for the blind from $500,000 to $1,000,000.
1949	P.L. 81-290 permits braillewriters to be sent through the mail at a base rate.
1950	Thirty-nine states and Hawaii now have legislation related to the education of physically handicapped children.
1952	Thirty-two states, Hawaii, and the District of Columbia require certification of special education personnel.
1956	P.L. 84-825 amends the Interstate Commerce Act to authorize common carriers (railroads, buses) to exempt the fare of an attendant traveling with a handicapped person.

1961	P.L. 87-294 authorizes wider distribution of books and other instructional materials for the blind.
1962	P.L. 87-765 establishes in the Library of Congress a library of musical scores and other instructional materials to further educational, vocational, and cultural opportunities in the field of music for blind persons.
1963	The Rehabilitation Act Amendments add recreation for the ill and handicapped to the areas eligible for training program assistance.
1964	P.L. 88-1964 provides that instructional materials be available to all school children, including the exceptional. Title XI allows colleges and universities to create departments for teachers of exceptional children.
1965	P.L. 89-10 (The Elementary and Secondary Education Act) makes funds available (under Title I) for the educationally disadvantaged, including handicapped children.
1965	P.L. 89-313 amends Title I of the Elementary and Secondary Education Act to provide support for the education of handicapped children in state-operated schools and hospitals.
1966	P.L. 89-750 requires states to provide plans that detail needs and priorities and creates a bureau to administer all federal agencies involved in the education of the handicapped.
1967	P.L. 90-170 establishes the Bureau of Education for the Handicapped with the authority to set up resource centers. The law also authorizes funds for physical education and recreation for handicapped children.
1968	P.L. 90-480 provides for the elimination of architectural barriers to the physically handicapped.
1969	P.L. 91-61 establishes a National Center on Educational Media and Materials for the Handicapped.
1972	P.L. 92-316 provides for free or reduced-rate transportation for attendants for the blind.
1973	P.L. 93-112 (Rehabilitation Act of 1973) changes the existing law from the provision for vocational rehabilitation only to comprehensive rehabilitation, and introduces special projects and demonstrations in recreation. Section 504 of the Act prohibits discrimination in any program receiving federal funds.
1974	P.L. 93-380 (Education Amendments of 1974) grants handicapped children additional rights with regard to public education and physical education and recreation.
1975	P.L. 94-142 (The Education for All Handicapped Children Act) guarantees a free and appropriate public education with special education and related services to meet unique needs, and an Individualized Education Program for each handicapped child. Recreation is specifically included as a related service.
1976	All states now have laws subsidizing public school programs for exceptional children.
1977	Regulations governing the implementation of P.L. 94-142 are published.
1978	P.L. 95-602 (Rehabilitation Act of 1978) authorizes funds for integration of handicapped persons into existing recreation programs and provides rehabilitation services for severely handicapped persons for whom employment may not be a primary goal.

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infant. As a result, a large number of post-war babies were born blind because of the oxygen administered directly after birth. As these children grew and developed, their parents came to realize that they were not subnormal; indeed, they were intelligent and able to learn. People began to suspect that perhaps total separation from the family for the sake of proper education was not necessary.

During the early 50's, programs emerged all over the country to make it possible for a number of blind and visually impaired children to attend public schools, while benefiting from the services of a special teacher who understood their individual learning needs. It was also at this time that classes for children with severely limited vision began appearing in both schools for the blind and regular public schools.

During the decade of the 1950's, however, a large number, perhaps even a majority, of the nation's blind and visually impaired children were still being segregated in schools for the blind. In the 10 years that followed, another tragic occurrence served to change the course of events. A large number of women contracted rubella (German measles) during pregnancy. Children born to them often had multiple impairments. They exhibited blindness, deafness, and often heart problems and severe retardation. As these youngsters reached school age, special schools for the blind began to be viewed as the logical place for them. Simultaneously the public school programs were becoming accepted as the preferred educational mode for children whose problems stemmed only from a visual impairment.

The public school programs tried to allow children to spend as much time as feasible with their peers, while making certain that effective learning was taking place for blind and sighted youngsters alike. To this end, the special teacher worked with the regular classroom teacher to help with problems that arose both in the classroom and on the playground.

As a result, a small but substantial cadre of children and teachers—blind and sighted, regular and special—were learning that if the situation were handled with understanding, sensitivity, a bit of creativity, and a healthy dose of common sense, sighted and visually impaired children learning and living together would yield enormous benefits for everyone.

It is important to note that the mere placement of a child in one or another setting is no guarantee of success or failure. It is the quality of the child's experience in the setting that most influences his ultimate learning and personal adjustment. A youngster left to flounder on his own in a public school setting may experience pain, loneliness, and frustration. On the other hand, a youngster educated in a school for the blind, having known good teaching and been given opportunities for real learning and growth, will in all likelihood possess the inner resources to make whatever adaptations are necessary for successful living in the world outside the school walls. It is also true that if children do not get the special help they need in a public school setting, they will often leave high school with serious gaps in basic areas, such as elementary social skills or activities of daily living.

During the 60's and 70's the trend for children whose disability was solely visual was toward education in the public schools and mainstreaming into the community. This trend was also noticeable in the education of children with other disabilities, such as mental retardation. In fact, what was a trend, an educational approach subject to research and debate, has now become the explicit public policy of this country. Parents of children with disabilities hold the legal right to insist on a "free and appropriate public education." While the emergence of recreation services for visually impaired children has not resulted from the same legal mandates, the question is being confronted in the courtroom and may well be one of the future battle lines of the integration movement.

CHART II

Events Leading to Integration of Visually Impaired Children into the Community

1829	New England Asylum for the Blind opens in Watertown, Massachusetts.
1832-33	Residential schools for blind children open in New York, Boston, and Philadelphia.
1834	Louis Braille publishes the braille code.
1837	The first State Board of Education is established in Massachusetts.
1853	Superintendents of residential schools for the blind meet to try to get Congress to appropriate "a permanent printing fund" for the blind. (Although they fail, this meeting eventually leads to the establishment of the American Association of Instructors for the Blind.)
1871	The American Association of Instructors for the Blind (AAIB), now the Association for the Education of the Visually Handicapped, is founded.
1892	The braille typewriter is invented by Frank H. Hall.
1900	The first class for blind children in a regular public school opens in Chicago.
1904	Helen Keller graduates from Radcliffe College, Cambridge, Massachusetts.
1909	The first White House Conference on Children and Youth takes place.
1909	Robert B. Irwin organizes braille reading classes in Cleveland public schools.
1910	There are over 200 blind students in public schools.
1913	Roxbury, Massachusetts and Cleveland, Ohio institute sight-saving classes.
1917	A uniform braille system is officially adopted by schools and agencies in the U.S.
1918	The University of California institutes a program for teachers of blind children.
1921	The American Foundation for the Blind is founded.
1928	Dog guides are introduced into the U.S.
1930	The American Foundation for the Blind, in cooperation with the National Society to Prevent Blindness, devises a standard report form for eye examinations.
1931	The Library of Congress begins to distribute braille reading material.
1931	Three states issue certificates to special education teachers of blind children.
1934	The first talking books on long-playing records are produced.
1939	The dictaphone is used as an instructional aid in sight saving classes.
1941	There is evidence of a growing incidence of blindness in infants from retrolental fibroplasia (RLF).
1947	The Perkins brailler, an improvement over older models, is developed.
1947	The American Printing House for the Blind begins to print large-type books on a regular basis.
1948	Courses in special education are offered by 175 institutions of higher education.
1950	The Council for Exceptional Children becomes independent from National Education Association.
1954	The Supreme Court decision on public school desegration leads to racial integration in residential schools.
1957	Visotonor, an auditory reading aid, and Visotactor, a tactual reading machine, are designed as "medium cost reading devices."

1962	The concept of Instructional Materials Centers (IMC) is formulated through the recommendations of a Presidential task force.
1963	A rubella epidemic (1963-1965) causes blindness in 5,000-6,000 babies whose mothers contracted the disease in early pregnancy.
1965	The prototype of the Sonicguide (Kay binaural sensor) is invented. Ultrasonic sensors are mounted in eyeglasses to obtain signals from objects in their field.
1966	The laser cane, a long cane with a unit that emits beams of light to detect objects in its path, is invented.
1968	The Bureau of Educational Personnel Development and Bureau for the Education of the Handicapped decide to work cooperatively to develop personnel to work with handicapped children.
1969	The American Foundation for the Blind conducts a demonstration workshop in Ohio to facilitate integration of visually impaired children into recreation and physical education programs in the Cleveland public school system.
1971	The Subcommittee on Recreation and Leisure of the President's Committee on Employment of the Handicapped is established.
1971	The Optacon, a tactual reading machine that changes print into letter configurations of vibrating reeds, is ready to be produced and marketed.
1972	The American Foundation for the Blind hires a specialist in training to ensure the continuance of newly developed training programs for helping agencies integrate visually impaired children into their activities.
1972	A pocket-sized braillewriter is invented.
1973	The National Forum on Recreation for the Handicapped of the President's Committee on Employment of the Handicapped is established.
1973	The American Foundation for the Blind tests training materials for youth leaders and agency personnel at a workshop in Atlanta, Georgia.
1973	The American Foundation for the Blind convenes a meeting of experts on visual impairment and on recreation to explore the utilization and training of recreation assistants to work with visually impaired children in community recreation settings.
1974	The American Foundation for the Blind convenes a meeting of therapeutic recreation educators in St. Louis to impact upon preservice training programs for recreation professionals.
1975	A follow-up to the St. Louis meeting of the American Foundation for the Blind is held in New York, leading to the development of training and instructional materials for colleges and universities.
1975	A talking calculator with audio and visual output is developed.
1976	Handicapped children are mainstreamed into regular public school classes throughout the nation.
1975	The Kurzweil Reader, a prototype translater of printed material into synthesized speech, is invented.
1977	The White House Conference on Handicapped Individuals is held.
1981	The year 1981 is proclaimed the International Year of Disabled Persons by the United Nations.

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Recreation

The emergence of recreation services for blind and visually impaired individuals in America is roughly parallel to the development of educational services.

Publicly supported recreation began in the early part of the 20th century in the Boston Sand Gardens, urban playgrounds, and wherever children gathered to kick a ball or play a game. Formal recreation services attempted to give structure to society's desire for appropriate opportunities for meaningful recreational activity.

In addition to the playground movement, the field of recreation found some of its roots in the social reform efforts promoted by settlement houses, YMCA's, and other voluntary agencies; consequently, many early leaders were activists who recognized the potential of recreation to encourage and prepare disabled or otherwise disadvantaged persons to become integrated into community life.

Formalized concern for the recreation needs of impaired individuals first surfaced as a specialized activity of the Red Cross during World War I. Later, recreation was incorporated into the rehabilitation programs of the veteran's hospitals as well as those of most state psychiatric facilities.

A new professional specialization called "hospital recreation" came on the scene soon after World War II with the formation of the Hospital Section of the American Recreation Society in 1948. Several years later, a second group—the National Association of Recreation Therapists—was formed along with the Recreation Therapy Section of the American Association for Health, Physical Education, and Recreation.

These groups were primarly concerned with disabled persons in institutions. They maintained that commitment over the years. In 1966, however, several professional organizations interested in responding to recreation needs of disabled persons merged and formed the National Therapeutic Recreation Society under the organizational umbrella of the National Recreation and Park Association.

The National Therapeutic Recreation Society, while still representing the concerns of institutionalized disabled persons, adopted a philosophical position that recognized a "continuum of care," with the primary goal of enabling disabled individuals to find programs and services of interest in order to achieve optimal independent functioning.

Much time and energy have been invested in trying to make recreation leaders aware of their responsibility to offer recreation services to disabled persons, including those who are blind or visually impaired. These efforts have met with limited success.

One reason for this is that the community-based recreation leader thinks that his training is insufficient or inadequate to respond to the special needs of a disabled person. He may feel that there is an insurance risk or that the disabled individual may frighten away other program participants.

Whatever the fears, prejudices, or biases, recreation personnel are gradually coming to recognize that all persons are entitled by public mandate to equal opportunity for self-expression through recreation.

Just as disabled citizens, including those with visual impairments, are coming to realize the important part that recreation plays in the lives of people, the community recreation specialist is beginning to take a greater responsibility for the provision of those services. Recreation is being seen as part of "total wellness" as much as it is a part of the process of "becoming well." Most important, recreation is being seen as a crucial element in staying well.

Although public recreation may not have exhibited great leadership and forward thinking in terms of the provision of recreation opportunities for the visually im-

paired, there have been many dedicated recreation leaders who have worked on behalf of blind and visually impaired children. In special schools, in community service agencies, in voluntary associations, and in other settings, many recreation leaders and other activity-oriented professionals and volunteers have worked long and hard to ensure meaningful leisure opportunities for blind and visually impaired youngsters.

THE LEGAL MANDATE

Initiatives of educators, recreators, and parents have helped to foster changes in the lives of blind and visually impaired citizens, particularly children. These individuals and their advocates have made their needs known through political channels and have been guaranteed certain basic protections and freedoms by law.

Unlike some other disabled populations, blind people in America have seemed to be always surrounded by a community of interested parties. In the late 19th and 20th centuries, numbers of wealthy individuals helped create such agencies as the American Foundation for the Blind and the Lighthouse for the Blind, both based in New York City. Thus, a group with some influence (in fact, enough to ensure that blind persons were represented in a specific section of the Social Security Acts written in the 1930's) was beginning to emerge.

The legislation implied that blind people had financial needs different from widows, persons over 65, or others for whom the law was intended. An unstated assumption was that blind persons were not likely to work; therefore, their basic income must be assured. When laws concerning employment did come about in the 40's and 50's, they tended to deal with protected or special situations. Laws governing the operation of sheltered workshops as well as laws guaranteeing blind persons special privileges concerning running newsstands, food vending stands, and cafeterias in federal and state buildings were enacted.

These laws were an important step: they provided work for thousands of blind persons who had had few or no employment opportunities. However, nothing in federal or state law assured individuals an equal chance at competitive employment. If a company hired a blind or visually impaired worker, it was because the worker was able to sell himself and overcome whatever doubts, fears, or prejudices the company held.

A similar situation applied to school-age children. There was nothing in the law to which a parent could turn if he or she wanted a blind son or daughter to attend a local public school rather than a residential school for the blind. It was up to the parent and child to convince the school to allow the child to enroll.

Meanwhile, the nature of the groups lobbying to promote the interests of blind and visually impaired individuals was changing. People who were themselves blind or visually impaired began to come together in groups, not under the umbrella of a particular agency, but as blind individuals interested in securing their rights to equal opportunity in all phases of American life.

These forces were just beginning to make themselves felt when the civil rights struggles of the 1960's established a model for achieving social change. The 1964 Civil Rights Act was a landmark piece of legislation for blacks and other ethnic minorities, and its implications were not lost on blind and other disabled individuals who were assembling to protect their interests and advocate their rights. They were beginning to realize, as were the parents of children with impairments, that full participation in the society was a true right only when it was rooted and grounded in law.

During this period, small battles were being won, but they were very long and

sometimes very painful. One blind teacher in New York City had his case in the courts for 10 years before it was finally determined that blindness alone was not sufficient reason to bar him from teaching.

In 1972, the Pennsylvania Association for Retarded Citizens took the state of Pennsylvania to court, for retarded children, and won the right to a publicly supported education. Other cases followed. Some states began to pass statutes explicitly guaranteeing this right to disabled children. Rights that had been fought for by educators, parents, and disabled individuals themselves were beginning to become a part of the nation's public policy.

Between 1968 and 1978, the U.S. Congress made several decisions that showed clearly its intent concerning disabled Americans — adults and children: that these individuals are part of the community and not a separate class to be educated or employed in a setting apart, unless it can be demonstrated that this separate setting is indeed the most appropriate, or as one law puts it, the "least restrictive environment."

The Rehabilitation Act of 1973 poured unprecedented new monies into the rehabilitation system, a system established to fund training and foster employment of disabled adults. Title V of the Act contains several provisions, the implications of which go far beyond the funding of this system. In fact, sections 503 and 504 of this Act have come to be called by many the Civil Rights Act for disabled people. While the analogy is only partially accurate, Title V is the federal government's first clear statement prohibiting discrimination against people with disabilities. Section 503 prohibits discrimination by any organization that has been awarded a federal contract. It also requires, again for the first time, affirmative action planning with respect to disabled people by any company having more than 1,500 employees.

Section 504 applies to any institution or agency that receives federal assistance — virtually all schools, most recreation agencies, colleges, and hospitals, as well as any state or city department or agency receiving federal funds. It states clearly that "no otherwise qualified disabled person shall solely by reason of his disability be denied participation in or benefit of any program of the agency receiving federal funds." The regulations issued by what was then the Department of Health, Education and Welfare (HEW) go on to state that institutions must take reasonable action to make their programs truly accessible to and usable by disabled individuals.

It is worth noting that although the Rehabilitation Act containing section 504 was passed in 1973, no regulations (necessary if such a law is to be truly enforced) were issued by any federal department until 1978. A fact not so widely known is that the signing of the HEW regulations did not occur until groups of disabled citizens in New York, Washington, San Francisco, and other cities staged sit-ins at the various department offices.

Later that same year, Public Law 94-142, the Education for All Handicapped Children Act, took effect. It required a "free, appropriate public education for all handicapped children." The law intended that disabled children be educated with their nondisabled peers unless the parents and local educational agency (i.e., the school) agreed that that child's particular set of "special needs" dictated another type of placement. The law used the concept of 'least restrictive environment" as the basic means of making placement decisions. For some severely disabled children this may be a segregated setting. For many children, however, the "least restrictive environment" is a regular public school classroom, with a program that includes supportive services.

Both laws presented physical education and recreation as educational objectives in themselves, not just as means to ends (Brannan, 1975). In fact, in the 1978 Congressional amendments to the Rehabilitation Act of 1973, an entire section underscores the importance of the inclusion of disabled youngsters in existing community

recreation programs. These amendments make available funds for the development of programs that can include both disabled and non-disabled youngsters as well as for training personnel in existing programs.

BARRIERS TO FULL PARTICIPATION

Is it practical or possible for a recreation specialist to continue to be effective and helpful to a group when the special needs of children with limited or no vision must be kept in mind? This book is based on an affirmative response to this question and the premise that where this situation exists there is an opportunity for creative growth and enrichment for all concerned.

In other sections of this book, the information needed to support this premise has been provided. At this point, however, it is important to examine some of the assumptions sighted people may have when working with blind and visually impaired individuals, assumptions that can make their work far more difficult than necessary.

1. *Something has been lost.* An interesting question is whether or not this perspective is basic to the way in which a blind or visually impaired person perceives himself. If literature in the field of blindness is any help at all in understanding this issue, the answer would seem to be a rather resounding "no" (Cutsforth, 1957; Carroll, 1961).

Even in the case of someone whose blindness occurs later in life, once the period of initial "mourning" for lost vision has ended, if the individual is healthy, he generates a new concept of his own wholeness and freedom within the true range of his own abilities. Hector Chevigny, who lost his sight as a middle-aged adult, attempted to explain this phenomenon by comparing the newly blinded individual to an animal that has lost one leg. Indeed, the animal learns a new way of walking so that it becomes a three-legged animal instead of a four-legged creature that has become an amputee.

This distinction may seem small, but if it is broadly accepted, it will be easier to view children who have visual impairments as full and complete individuals. It will be clear that although they may have to learn a different way to run or play baseball, they still achieve the same freedom and enjoyment the activities bring to their sighted peers.

2. *Vision is the mechanism used to make sense out of the world.* In terms of distance, as well as certain types of detail, the sense of sight definitely seems to be the most efficient sense a person possesses, and the one that enables a person to obtain an organized sense of his environment. People are recognized by sight; we know where we are by examining our surroundings; when we shop we "look" for bargains. Most people are dependent upon reading the numbers when dialing a phone. Most sighted people wonder what the world must be like for someone who cannot structure it though vision.

While it is true that the sense of sight is enormously helpful in allowing a person to understand the world around him, it would be a mistake to suppose that understanding is done with the eyes alone. Anyone familiar with ophthalmology can tell us that the real "seeing" is done in the brain. This means that if the functioning of the eyes is impaired, what is impaired is only one channel of information, not a person's total capacity for understanding and organization.

Thus, an individual whose vision is diminished learns to use not only his residual vision but cues of sound, smell, and overall context to stay oriented. An individual without useful vision learns to use other cues — to recognize an individual by voice, a particular walk, or a favorite after-shave lotion. He knows where he is by means of tactile, auditory, or even thermal cues, such as the position of the sun. When he goes

into a store, since he cannot "look" for a bargain, he will learn to ask the kinds of questions to obtain exactly the information he needs before making a purchase. (Of course if this is not possible, provided he has a measure of common sense, he will take a friend with him just to make sure he is getting good answers to his questions.) The important point to consider is that the senses are simply useful gatherers of information; they are not the means by which the world is understood or appreciated.

3. *I couldn't do that if I were blind.* When a sighted persons imagines a child jumping rope, riding a bicycle, or participating in a play, or an adult traveling to work, keeping a home, or raising a family, he tends to view these activities as possible only for someone with vision. If a sighted person is using himself as a reference point, he will find it unthinkable that individuals without vision can do the same things he can.

When observing a visually impaired child in the recreation program, it is immediately evident that he is quite practiced at living with little or no sight. Two 10-year-old children, one with sight and one without, may both have poured a glass of milk for themselves the same number of times. However, the blind child learned early to stick his finger in the glass so that he would not flood the table. The child with sight learned at the same time that he had better *watch* what he was doing or he would flood the table.

It will be natural for the sighted child to wonder, therefore, how his friend will be able to pour milk. The wonder of children, however, is that they will either ask their friends this question or watch them in action and find out. Adults, on the other hand, are all too tempted to assume that something is not possible.

All children have different rates and styles of learning. If the sighted person can get rid of his previous negative orientations to visual impairment, he will be able to see that greatly diminished sight or the total lack of it is merely another influence upon the way in which a child will learn. In fact, it is likely that the child himself and others in the group will be very creative in figuring out ways in which games and other activities can be altered to allow everyone to participate.

4. *I don't know enough to teach these kids; I'm no expert on blindness.* Any time a new youngster enters a group for which the recreation specialist is responsible, it is, of course, helpful for the person to learn all he can about that child and about the kinds of learning needs and potentials he presents. The more that is known about the characteristics of a child, the easier it will be for the recreation specialist to develop strategies to incorporate him smoothly into a group.

However, community recreation specialists do not pretend to be child development specialists or in any other way experts on specific characteristics of children. Recreation practitioners have built up a tremendous repertoire of activities, methods, and techniques that enable children to play, learn, and grow. It would seem, therefore, far more sensible to work from strengths rather than from supposed deficits. And, in fact, as one tries methods that are known to be successful with normally sighted youngsters, it is usually the case that the strategies will work for children without sight. Blindness and visual impairment are not the global obstacles to life they are often thought to be. When evaluating the usefulness of any approach to working with children, keep in mind that these youngsters are children, first and foremost.

Blind and visually impaired individuals often report that some of their best teachers were those who knew nothing about blindness. The reason for this is that those teachers were, above all, people who were open and willing to act on the premise that many things were possible for their blind students. These teachers were confident of their own ability to teach and of their own knowledge of the subject,

whether it was in the classroom, in the gym, or on the playground. Their unstated conviction was that if they were good teachers or leaders and if these were, indeed, just children with different learning characteristics and needs, then they could find ways to overcome what might otherwise have seemed to be difficult barriers. The benefits to be derived from seeing oneself and the student in this way are limitless.

Long-held assumptions and ideas are not changed by reading a book. It is perfectly reasonable to expect that anyone who is encountering blind and visually impaired individuals for the first time, particularly if it is not by choice but rather in response to a directive from the community or place of work, is going to experience some discomfort and apprehension. Ours is a visual society. People inherit all sorts of notions from sources as far back as the Bible that teach us that blindness is punishment for sin, that it is an affliction, that it is tantamount to death, or, if we read Freud, that it is a symbol of castration (Cohen, 1972).

Furthermore, from an experiential point of view, when a person meets a blind individual, some of the basic rules by which interpersonal exchanges operate are broken. There may not be the expected exchange of smiles or eye contact at the moment of greeting. A blind individual cannot read facial and other physical cues, and those that he sends out may not always seem to match his words because he has not had the practice of imitating culturally appropriate expressions of his parents and peers (Scott, 1969).

When working with a child who has some usable vision, a recreation specialist may find himself making mistakes because it is not always clear what the child can and cannot see. As the process of getting to know the individual children in a program begins, these considerations become small and manageable. Finally, it is worth emphasizing again that much can be learned from watching the way in which children interact. It is not always necessary to teach the sighted youngsters in the group how they should behave with a newly arrived blind or visually impaired child. If they know that the recreation leader accepts the child, they will usually find ways to communicate with him — ways that can actually serve as examples to the adults.

SUMMARY

We are living in a time and in a culture where leisure is becoming a major consideration in how we structure our lives. Adults and children alike need to become more aware of the quality of the time spent away from school or work.

Disabled people, in general, and blind and visually impaired individuals, in particular, are no longer being relegated to separate settings for education, recreation, transportation, employment, and living. Individuals with disabilities, parents of disabled children, educators, and, finally, the Congress of the United States have come to realize that we are one community of people, that we do not choose to mainstream only some children and exclude others. All children are part of their communities and as such the preferred mode of education and recreation for these children is within the community. These principles, applied both to adults and to children, are now the law of the land.

It is true, however, that full participation of blind and visually impaired youngsters can be difficult for them as well as for the leaders of recreation programs unless commonly held unproductive or counterproductive assumptions about blindness are examined, questioned, and finally allowed to be dropped or revised. These assumptions include the idea that a blind individual always sees himself as one who has lost something or who has been deprived, that the adult or child who is blind will be unable to organize or make sense of the world, that the performance of even

very routine tasks will be impossible, and that methods used to teach normally sighted youngsters will have no meaning or value for youngsters without sight.

These attitudes and assumptions cannot be swept under the rug; they are best handled by honest examination and by being subjected to the test of experience. Obtaining accurate information about blindness and visual impairment, what it is and what it means, as well as watching children in action will do much to make any recreation program successful and enriching for all children.

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CHAPTER 2

Introduction to Visual Impairment: The Process of Seeing and its Relationship to the Provision of Recreation Services

By Iris Martinez with Dava Grayson

The child who is visually impaired is just as much in need of recreational activities and experiences as his sighted peers, and, given the right circumstances and opportunities, may be just as capable of participating. Some activities can be enjoyed by blind and visually impaired children with no adaptations, while others may require varying degrees of modification in equipment used, rules, or time allotted for participation.

Most visually impaired children have some functional vision and can use this residual vision to participate in a wide variety of recreational pursuits. To become an effective provider of recreation services to visually impaired children and youth, it will be helpful, if not essential, to learn what visual impairment is, especially as it relates to how the visually impaired child sees and how he functions. It will also be important to be aware of the cause of the child's eye condition so as to be certain that he is not allowed to participate in an activity that could cause harm.

This chapter provides the recreation specialist with some of the basic information he should know about visual impairment. It begins by looking at some of the most common terms used in understanding visual impairment; there is a discussion of normal vision and how a person sees; this is followed by a review of some of the more common types of visual impairment and their causes. Finally, the chapter offers some suggestions to the recreation specialist on instructional and leadership techniques for working with the visually impaired child.

DEFINITIONS

As stated above, most people who are visually impaired do have some vision, even if they are classified as legally blind. While many people today prefer to use the word "blind" only when talking about total blindness, which is the complete absence of vision or light perception, the term "legal blindness" is still in use because of its value in identifying those individuals eligible for specialized services or economic assistance.

In terms of working with a child who is visually impaired, however, it is best not to be concerned so much with definitions as with how well the child is able to use any remaining vision he may have. Two youngsters may have the same degree of usable vision, but one will not use it as efficiently as the other. It is how the child *functions* that will concern the person who is teaching him a new skill or leading him in a group. Also, it is important to realize that the child may have better vision in certain types of light (for example, he may need bright light to see, or too much glare may hurt his eyes, depending upon the nature of his visual impairment) or that occasionally a child will have fluctuating vision (e.g., because of diabetic retinopathy) and can use his vision for certain activities on one day but not the next. Factors such as fatigue and previous exposure to a skill also affect visual functioning. Often the best way to determine what the child can see is simply to ask.

Legally Blind: This term was originally developed in the 1930's by a committee of the Section on Ophthalmology of the American Medical Association because a cut-off point was needed to determine which persons were to receive public assistance. "Legally blind" is still an administrative term used to determine who is eligible for specialized services.

A child is legally blind if his central visual acuity does not exceed 20/200 in the better eye with corrective lenses or his visual field is less than an angle of 20 degrees. The child with 20/200 acuity sees at 20 feet what a normally sighted child sees at 200 feet. However, depending on the nature of his visual loss, a legally blind child is sometimes able to use vision for travel, reading, or other activities.

Visual Impairment: In the context of this book, the term "visual impairment" includes legal blindness. A visually impaired person is someone who has an impairment of vision caused by trauma, pathology, and/or congenital abnormality.

A person who has less than 20/70 acuity in the best corrected eye and/or less than a 20-degree field of vision is considered visually impaired. For example, a child with 20/70 acuity would see at 20 feet what a normally sighted child sees at 70 feet.

Low Vision: Any person unable to use vision to meet the demands of an activity is considered to have low vision. This means that regardless of the person's acuity or visual field, if the individual is unable to utilize vision efficiently and effectively for a particular activity, then the person is considered to have low vision and is regarded as functionally impaired.

Congenital and Adventitious Blindness: Congenital blindness refers to blindness that occurs at birth or during the first five years of life. The child who is congenitally blind does not have visual memory and because he cannot visualize, does not learn a skill by developing a visual image or picture; rather he relies on his remaining senses for orientation and accomplishment of the task.

The child who is adventitiously blind has had vision (for at least five years) and should be encouraged to use visual memory. In addition to using his remaining senses, he can use visualization of his environment and objects in the environment for better mobility and performance of tasks.

It is important for the recreation specialist to know whether the child is adventitiously or congenitally blind, both in order to understand the child's concept development and to apply various teaching techniques.

Blindisms: "Blindisms" are unique mannerisms that some blind children exhibit, such as rubbing or pressing the eyes, rocking, rolling the head, and waving the hands. Children must be made aware that these behaviors are not considered appropriate by sighted persons. A recreation specialist might handle this by discussing the mannerisms with the child and suggesting alternative behaviors which are more socially acceptable. If the inappropriate mannerisms persist, the recreation specialist should consult with parents before undertaking further remediation strategies.

LOW VISION SERVICES

The majority of children who have a visual impairment are not totally blind but have some residual vision that can be used effectively in activities of daily living and in recreation. The visually impaired child can perform many of the same activities and pursue the same recreational interests that a normally sighted child can, given some special considerations. Because the child may have difficulty using his vision effectively, there may be problems related to certain recreational activities.

The recreation specialist should be aware that there are low vision services that can help improve the child's ability to use his remaining vision. These services include a special examination by an optometrist or ophthalmologist who specializes in low vision. This kind of examination is different from a routine eye examination. When a question about visual functioning or appropriate remediation techniques exists, the recreation specialist should refer the child to low vision services and inform the low vision specialist of the child's recreational needs and the type of recreational programs in which he will participate.

The purpose of the in-depth low vision examination is to prescribe optical and non-optical aids that improve the child's ability to see. Optical aids vary in type and purpose. They are usually small enough to fit into the child's pocket. Optical aids, such as telescopes, microscopes, stand magnifiers, and hand-held magnifiers, may be used effectively to improve vision, thereby enabling the child to perform an activity that he would otherwise be unable to perform. Non-optical aids, such as special lights, reading stands, bold-line paper, and felt tip pens, are also effective in helping the child use his remaining vision. Non-optical aids are often prescribed in conjunction with optical aids.

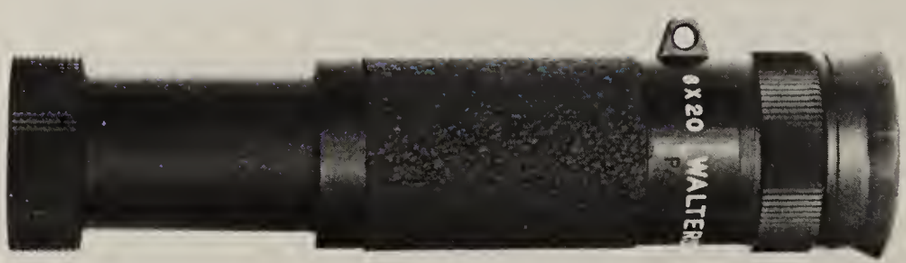
Depending on the activity, certain optical aids will be more appropriate than others. For example, a small telescope (hand-held or mounted in glasses) may be prescribed to help the child spot objects or people at a distance. A microscope may enable the child to work with arts and crafts materials. Hand-held magnifiers or stand magnifiers may help with hobbies such as stamp or coin collecting.

When the low vision specialist prescribes the optical aid, the child will usually require some training to use the aid efficiently. The recreation specialist should contact the low vision specialist to find out how the aids are to be used and how to help with the child's further training in the use of the aids.

Some low vision aids may be cosmetically unappealing, leaving the youngster open to teasing or ridicule by his peers. When this occurs, it is important to have the low vision specialist, the recreation specialist, and other adults explain the use of the aids to other children and help prepare the visually impaired child to deal with potential reactions.

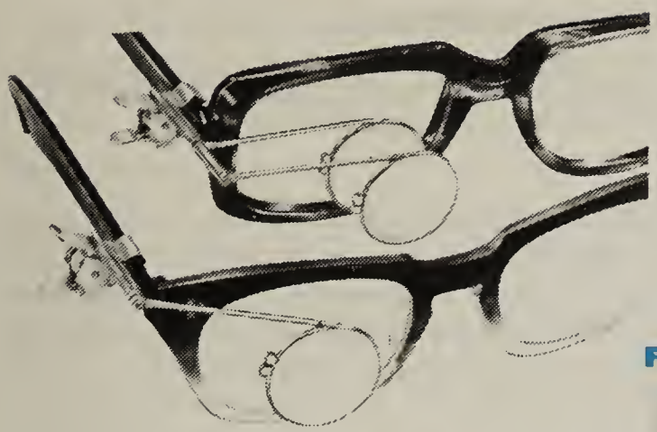
Bioptic System

Fixed Focus
Stand Modifier



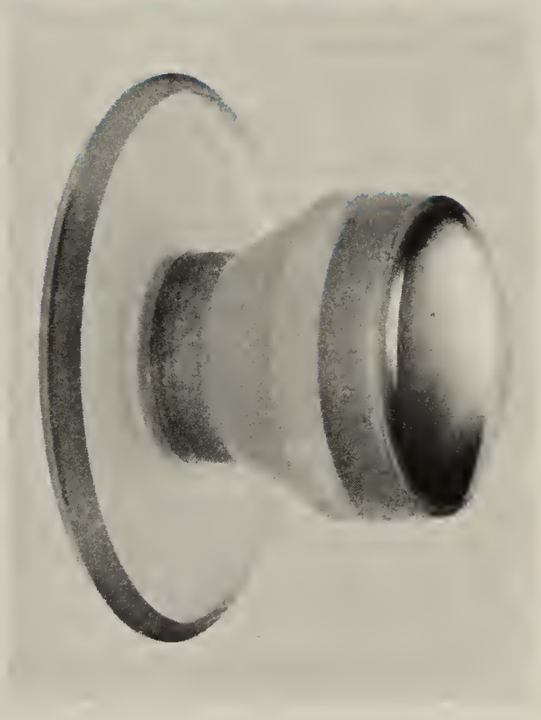
Monocular
Telescopes

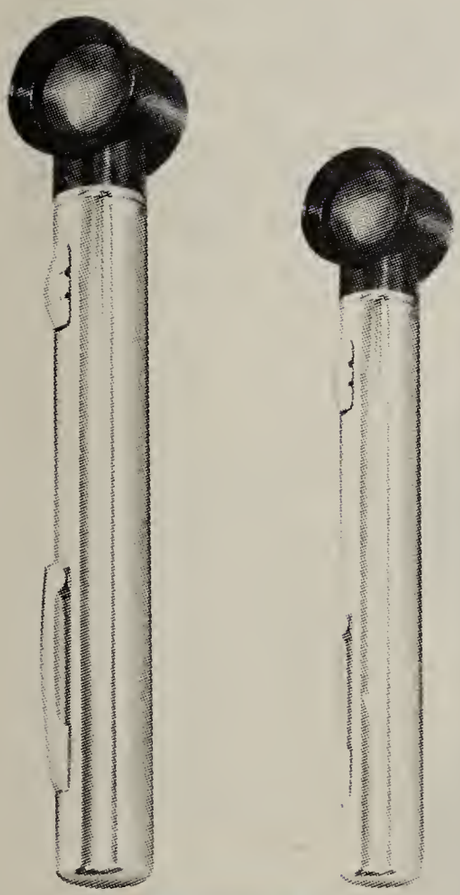
Figure 1. Optical Aids.



Full Diameter Telescope

Loupes





Flashlight Magnifiers

Pocket Magnifiers

HOW THE EYE WORKS

Before providing information on some of the specific types of visual impairments, it may be helpful to review the basic process of how a person sees.

Functioning

Vision requires not only the eye but light, without which there can be no sight, and the brain to interpret what is seen. Good vision also requires two eyes that function together, a healthy optic nerve that will transfer the messages to the brain, good blood circulation, a body free of infection, and a well-functioning nervous system. All systems working together produce normal, binocular, stereoscopic vision.

How We See

1. Light rays enter the eye, reflected from whatever lies within the visual field.
2. The light rays pass through the cornea, or front covering of the eye, which is like a clear, curved window, and through a field called the aqueous humor.
3. They then pass through the pupil, the opening in front of the lens, which contracts, and dilates according to the amount of light needed.
4. The light rays continue to the lens, where the cornea and lens combine to bend and focus them on the retina. (The light sensitive retina has been compared to the film of a camera). The muscles controlling the lens adjust its shape for near or far vision by means of the ciliary muscles: the lens becomes more convex as objects come closer and less convex as they move farther away.
5. The rays continue through the vitreous body to the retina, where the rods (sensitive to movement and low levels of illumination) and cones (sensitive to color and fine detail) are stimulated through a photochemical response.
6. This chemical change causes retinal fibers to send messages to the brain via the optic nerve.
7. The brain creates an upside-down image, which is translated into the right-side-up image the person sees. (The brain is actually processing two images because it is sent a slightly different image from each eye. However, when vision is normal, the visual center handles this automatically.)

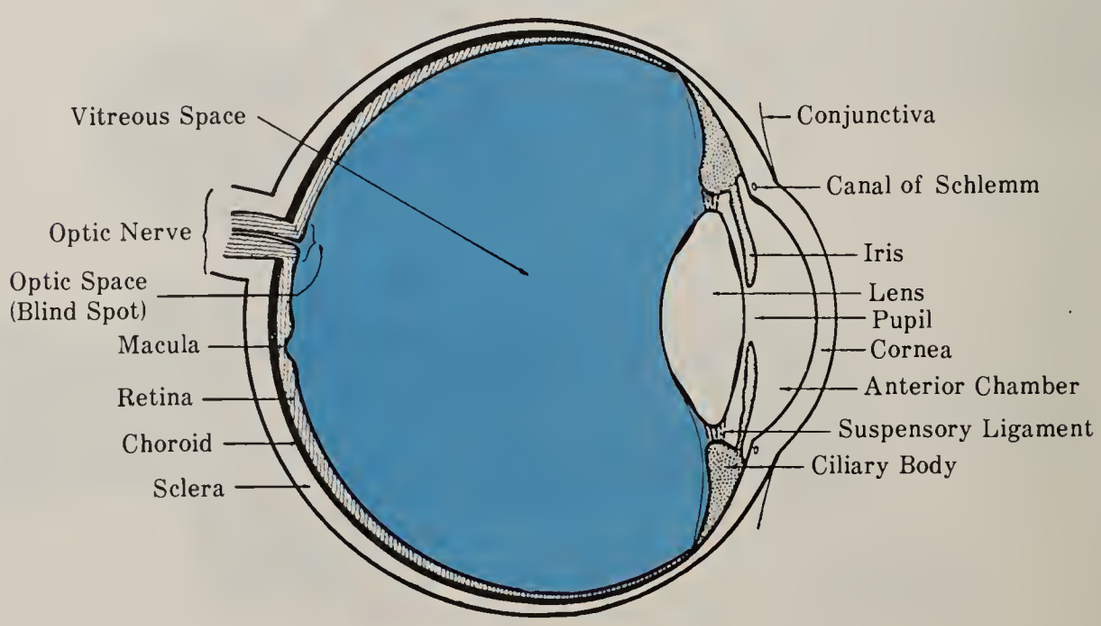


Figure 2. Cross section of the human eye.

Types of Visual Loss and Their Effect on Functioning

In terms of how the eye functions, it is possible to review how normal vision is used and to consider eye conditions that may affect participation in activities.

Visual Acuity

Visual acuity is sharpness of vision, the ability of the eye to distinguish detail. The eye has the ability to adjust to various distances to get a clear image. People use their near-point visual acuity for reading, working with crafts, cooking, and sewing. They use their intermediate visual acuity for such tasks as seeing people's facial expressions across a table or reading music, and they use their distance visual acuity when reading road signs or seeing a friend down the block. When a batter sees the baseball spinning toward him, he is using both distance and intermediate visual acuity. An artist uses his near-point visual acuity to construct a detailed drawing.

The following are some of the eye conditions that affect visual acuity:

Myopia

Myopia or nearsightedness is a condition in which rays of light come to a focus in front of the retina. This occurs because the eyeball is too long from front to back or because of an excessive curvature of the cornea or lens that may bend the light rays so that they fall in front of the retina.

A child with high myopia may be able to accommodate for near-point activities but will have difficulty with activities that require distance vision. The following is an example of a typical problem of high myopia and what the recreation specialist did to help.

Jane, a 13-year-old girl with high myopia, had a friend who interested her in archery, but Jane was having difficulty seeing the target. The recreation specialist suggested that she move closer to the target. When she learned to hit the bulls-eye

ACTIVITIES & VISION REQUIREMENTS

Near Vision	Near-Intermediate	Intermediate-Far Vision
1. sewing	1. table tennis/ping pong	1. spectator sports
2. reading	2. gardening	2. birdwatching
3. writing	3. billiards/pool	3. archery
4. crafts	4. cooking/baking	4. attending concerts
5. painting/drawing	5. fencing	5. baseball
6. woodworking	6. judo/karate	6. bicycling
7. ceramics/pottery	7. mountain climbing	7. bowling
8. jewelry making	8. playing a musical instrument	8. dancing
9. knitting/crocheting	9. dining out	9. golf
10. model building	10. swimming	10. horseshoes
11. sculpture	11. weight lifting	11. hunting
12. bingo	12. flower arranging	12. ice skating/roller skating
13. needlework	13. cards	13. kite flying
14. crossword puzzles	14. table games	14. skiing
15. jigsaw puzzles	15. auto repairing	15. squash/handball
16. taking snapshots	16. casino gambling	16. acting/dramatics
17. stamp collecting	17. weaving	17. sailing
18. leatherworking	18. visiting museums	18. hiking/walking

at close range, she gradually increased her distance from the target. Jane could also have been assisted by low vision aids, such as a special telescope mounted on her glasses, prescribed by a low vision specialist. The telescope would improve her ability to see at a distance.

Hyperopia

In hyperopia (farsightedness), the light rays come to a focus behind the retina because the eyeball is too short. An individual with hyperopia may be able to view distant objects but may have difficulty with near-point acuity. Therefore, a child with hyperopia may do well with recreational activities that require distance vision, but have trouble with activities such as painting or crocheting that require use of near-point vision for a long period of time. Optical aids such as magnifiers or microscopes provided by a low vision specialist may help.

Through the use of unique types of magnifiers and microscopes prescribed by a low vision specialist, the visually impaired child who has difficulty seeing at close range because of hyperopia or some other condition can have greatly improved visual acuity and be able to see well enough to read normal print.

Nystagmus

Nystagmus is an eye condition in which focusing powers are diminished at near and far distances. It is an involuntary, rapid or jerky movement of the eye or eyes from side to side, up and down, in a rotary motion, or any combination of these, but it is usually a horizontal movement. Optical aids such as magnifiers and microscopes may help. Nystagmus is a secondary symptom of some other eye condition (e.g., congenital cataracts, albinism, retrolental fibroplasia), which will be discussed later. It may occur with other vision problems, depending on its primary cause.

A child with nystagmus may exhibit postures not demonstrated by children with normal vision. For example, the child may lower, raise, or turn his head to the side to look at an object. The reason some children do this is because turning the head gives them better control over the involuntary movement of the eyes and they are therefore able to maintain their view of the object clearly for a longer period of time. Some children develop rounded shoulders and other poor posture habits resulting from various motor compensations in an effort to improve vision. Postures necessary for better visual functioning should not be discouraged.

The recreation specialist can be helpful by suggesting both ways to relax and physical exercises to help the child counteract detrimental postures. Suggestions for alternate postures that would still allow better vision are also beneficial. For example, a visually impaired child can lift a piece of paper and scissors from the table and cut in an erect position, while still keeping the materials close to the eyes, rather than maintaining a stooped position over a table for a long period of time.

Binocular Vision

Binocular vision is the ability to use the two eyes simultaneously to focus on the same object and to fuse the two images received by each eye into a single image. Binocular vision provides an interpretation of the viewed object's dimensionality and position in space. Therefore, binocular vision is necessary to depth perception. This makes possible accurate perception of time/distance relationships and other perceptual experiences. The following eye conditions affect binocular vision.

Strabismus and Amblyopia

Strabismus, the turning inward, outward, upward, or downward of an eye, can result in the inability of both eyes to focus on the same object. When the brain receives the two conflicting images, it reacts by using the image from only one eye. The unused eye may become "lazy," which eventually results in a condition called

amblyopia, involving the loss of fine vision in the unused eye. Because both eyes are not working together, depth perception may be affected.

A visually impaired child who has strabismus, monocular vision (use of one eye or one eye at a time), or any other condition that affects depth perception may initially have difficulty with any activity requiring time/distance judgment. However, he can learn through practice how to improve this judgment and develop other perceptual skills. An example of an activity requiring time/distance judgment is batting the ball in a game of baseball. The child must perceive the ball in motion and estimate with accuracy the arrival of the ball at home plate. Hitting a ball is an extremely complex skill that requires not only vision but a high degree of motor performance and eye-hand coordination. However a visually impaired child may be able to master the activity under certain conditions.

Indeed it is important for the child to improve his perception by participating in activities that reinforce the visual motor functions such as the eye-hand coordination. The recreation specialist may need to provide individual assistance to the child with poor binocular vision in order to facilitate this learning.

In activities such as bicycling, movement is an important factor. It is important that the visually impaired child learn how to make accurate time/distance judgments while he himself is in motion. These judgments may develop with practice but sometimes require special training.

The recreation specialist can facilitate success by controlling the environment so that first both the participant and the object are stationary, then only the child is in motion, next only the object is in motion, and finally, once all the other skills have been mastered, both child and object are in motion together. This is a good general principle to follow when any child is learning a skill and it is particularly helpful to use with a visually impaired child.

Light and Vision

For most children and adults, the eye can adjust more easily when going from a darkened room to a well-lit area than going from bright sunlight into a darkened room. The muscles in the iris of the eye normally react to changes in illumination quickly by adjusting the size of the pupil. The chemical reactions in the rods of the retina take more time. When the change is from bright sunlight to a darkened room, the rods may be bleached from the sunlight and take up to half an hour to adjust.

In the following visual impairments lighting conditions affect functioning.

Cataracts

As a cataract is formed, the clear lens of the eye clouds and sometimes becomes totally opaque. (The process is likened to the changes an egg white goes through as it is cooked.)

Most frequently seen in older persons, the most common type of cataracts develop as part of the aging process (senile cataract). However, cataracts can also be present at birth (congenital cataract) and may be due to a metabolic defect. There are also cataracts which result from a wound (traumatic cataract) and secondary cataracts, caused by other eye disorders.

In addition to problems with glare and strong light, a child with cataracts may have decreased visual acuity. When most of the lens of the eye clouds, surgery is usually recommended. The lens is removed and glasses or contact lenses prescribed to take its place. However, vision is still not normal, as eyeglass lenses magnify images and affect side vision. Contact lenses are better because they magnify images less than glasses. There has been success with intraocular lens implants, permanently implanted lenses, although not all cataract patients are candidates for this surgery.

Figure 3. Normal vision - cataract.

Depending on the acuity loss, individuals with cataracts may benefit from optical aids such as magnifiers or monoculars. Tinted lenses may also be recommended for outdoor or high glare conditions.

Albinism

Albinism is a hereditary condition in which there is a lack of pigment throughout the body. Children who have albinism usually have vision of 20/200 or better, but are very light sensitive and may require tinted glasses indoors as well as outdoors. (Nystagmus usually accompanies albinism, so acuity is also affected.) A child with albinism may function better in recreational activities indoors, where lighting can be controlled. However, tinted glasses, which allow as little as one percent light transmission, can help children to be comfortable outdoors in bright sunlight or glare. A hat with a wide brim may also be useful.

Field of Vision, Central Vision, and Peripheral Vision

The field of vision is the entire area that can be seen at one time by the fixed eye vertically and horizontally; that is, without moving the eyes or head.

Central vision is that portion of vision used for reading and other fine detail and discrimination activities, such as putting puzzles together and painting. (Good illumination is necessary to use this type of vision.) The macula, a small area in the back of the eye on the retina, is where the light rays must fall in order for a person to use central vision. The macula is composed of cones or photosensitive cells that transmit the messages of visual detail and color to the brain. If the macula does not develop properly in one eye, problems with binocular vision may occur.

Juvenile Macula Degeneration

Juvenile macula degeneration is usually congenital or develops shortly after birth, although it might appear at any point in childhood or adolescence. The child

Figure 4. Field of vision.

Figure 5. Normal vision - macular degeneration.

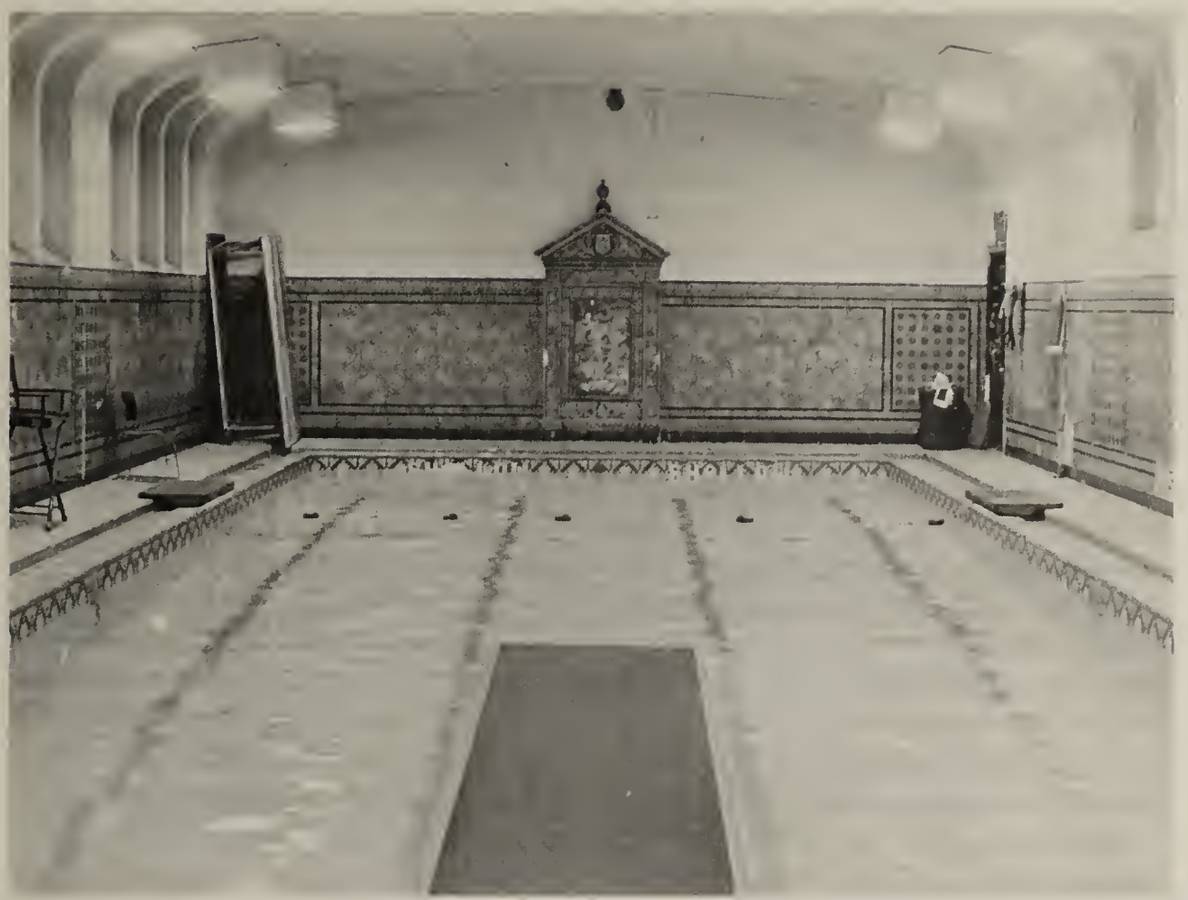


Figure 6. Normal vision - tunnel vision.

experiences a loss of central vision and decreased color vision. Activities such as reading, running, crafts, and sewing, as well as recognizing individuals in social situations, may require certain adaptations. Enlarging the materials or equipment is helpful as well as using strong color contrast (white on black, or yellow on black). The child should be taught eccentric viewing; that is, looking at an object by using peripheral vision.

Peripheral vision is side vision. Severe loss of peripheral vision leads to what is commonly referred to as tunnel vision. In terms of functioning in recreation for example, the child uses his peripheral vision for staying in the correct lanes in relay races and other games involving running, for seeing who is running next to him, and for determining how close his competitors are without moving his head from side to side.

Children with tunnel vision may have no problems with recreational activities that require central vision but may be limited when participating in activities such as volley ball that require peripheral vision and movement perception.

Retinitis Pigmentosa

Retinitis pigmentosa is a progressive, hereditary condition, usually starting in the teenage years, affecting the rods and cones of the retina. Night vision is lost first, then peripheral or side vision, and, at times, central vision. The result can be total blindness, but many people do retain some central vision. There are many types of retinitis pigmentosa and some are being treated successfully. Optical aids that provide a light source at night give some persons more freedom of mobility.

Glaucoma

Another eye condition that affects peripheral vision is glaucoma. An increase in the internal pressure of the eye causes damage to the optic nerve and, if left uncorrected, gradual loss of peripheral vision leads to total blindness. Unfortunately, glaucoma often goes unnoticed because it is usually painless and central vision is not affected until much irreparable damage has been done. Chronic glaucoma, the most common form of the condition, leads to progressive deterioration of vision. It is usually found in persons over 35 or 40. Acute glaucoma has a sudden onset and is usually painful.

Congenital glaucoma is caused by a malformation in the drainage system of the eye before birth or during the first year of life. Surgery to repair the drainage system as well as medication may prevent further damage but cannot restore that part of vision which has been affected. A child may have difficulty with recreational activities that require peripheral vision, such as bike riding, but may do well at activities which rely mainly on central vision, such as sewing, arts and crafts, or table games.

Detached Retina

Detached retina is an eye condition in which the retina is detached from the choroid and vascular layer. Symptoms are black areas or holes in vision and flashes of light. Immediate treatment is required to prevent blindness.

A child who has had surgery for a detached retina should avoid participating in activities that can jolt the body, such as diving, jumping on the trampoline, and contact sports since the chances of a second detached retina are high. Although less frequent, a detached retina can also occur in children who have high myopia or cataract surgery. This is why eye doctors frequently recommend that their myopic patients not participate in contact sports.

Fluctuating Vision

Hormonal changes that take place during adolescence can cause visual efficiency to fluctuate. This can affect the youngster's performance in recreational activities: a visually impaired teenager who is, for example, scoring baskets with no difficulty on one day, may have a problem seeing the rim on the next. Sometimes, fluctuating vi-

sion indicates a need for medical attention, but most often it is simply due to normal hormonal changes. However, it is best that a physician evaluate the cause to determine if medical intervention is necessary.

Diabetic Retinopathy

Diabetes (*diabetes mellitus*) affects many systems of the body, including the eye. Diabetic retinopathy is a condition in which vision may fluctuate depending upon what is happening to the small blood vessels of the retina: retinopathy occurs when the blood vessels of the retina burst and hemorrhage. If the hemorrhages are not absorbed, there is a build up of scar tissue, caused by a network of new blood vessels growing from the retina into the vitreous.

Diabetic retinopathy can, but does not in all cases, lead to total blindness, and treatment is sometimes successful. The longer a person has diabetes, however, the more likely it is that retinopathy will occur. A child will probably not have retinopathy, although an adolescent might, if he became diabetic early in childhood.

For an adolescent with diabetic retinopathy, physical activity becomes very important in management of the disease. However, the recreational program should be developed with the approval of the youngster's physician. Activities that lead to bruises and jolts to the body may have to be avoided by diabetics who have poor circulation because injury can result in infection.

The recreation specialist should be aware that the individual may perform at a higher level after a dosage of insulin than before. Also, the teenager who has not been getting regular exercise may find that he must change his insulin dosages as he becomes more active. The recreation specialist should be aware of the symptoms of too much or too little insulin.

The recreation specialist who is going to work with diabetic children can acquire more information on diabetes and its medical implications by consulting the child's physician or the local diabetes association, which is usually an affiliate of the American Diabetes Association.

Total Vision Loss

A child with total vision loss must depend on other senses to perform tasks that normally require vision. Some of the conditions discussed previously, such as glaucoma, retinitis pigmentosa, and diabetic retinopathy, can lead to total blindness. Two other conditions which may lead to total loss of vision are presented below.

Retrolental Fibroplasia

Retrolental fibroplasia (RLF) is caused by administration of too much oxygen to premature infants. The retinas of the eyes become opaque by an over-abundance of blood vessels; total blindness usually results. When this was discovered in the early 50's, RLF ceased to be a major cause of blindness. However, to save the life of a premature infant, it is sometimes necessary to administer oxygen at levels that create the risk of loss of vision. Thus children can still become blind due to RLF.

Rubella

Rubella (German measles) in the pregnant mother can cause cataracts, glaucoma, and defective retinas in children. Infants with rubella syndrome usually suffer other impairments, such as mental retardation, heart problems, and hearing loss.

Instructing the Blind or Visually Impaired Child

There are many recreational activities in which a totally blind child may participate with few or no modifications. Instruction for most activities requires direct, hands-on demonstration and more verbal explanation than a sighted child might need.

Swimming, dancing, wrestling, tandem bike-riding, bowling, woodworking, and dramatics are just a few activities that blind children and youth can enjoy. For ex-

ample, swimming instruction is the same as that used with children who are not impaired; however, more body contact may be necessary. (See Chapter IV for further examples.)

Use of Residual Vision

Visual impairment may alter the way an activity or task is performed. As mentioned previously, performance will vary from child to child. One individual with a particular impairment may have to get closer to an object or tilt the head to see it. Another with the same impairment, may need to use the sense of touch or other senses as well as vision in order to gather the needed information. The recreation specialist should encourage children to use their residual vision to the greatest extent possible. Through exposure, practice, and encouragement, many visually impaired children can participate in a wide range of recreational activities.

Concept Development

When teaching skills to a child who has little or no vision, it is important for the recreation specialist to know whether the child is adventitiously or congenitally blind.

The child who is adventitiously blind can use his visual memory to orient himself to his environment and to visualize the task he is performing. Furthermore, his concepts of body image and of spatial organization were developed at a time when he had vision. He should have an accurate sense of his own body and how it relates to his surroundings.

These basic concepts, so necessary to orientation and mobility as well as to the skills of daily living, including skills necessary to participate in recreational activities, may be lacking in the congenitally blind child. While sighted children learn these concepts automatically, just by using their vision, the child who was born blind needs to be taught concepts of body image and spatial organization, concepts related to distance, direction, and location. The child must learn about the structure of his own body: the parts of his body and how they work, how they move in space. Then he must learn to relate this information to orientation and to mobility in his environment. He must be able to tell his right side from his left and understand directions such as up and down, front and back, toward and away from, forward and backward, above and below. While it is best that the congenitally blind child, like the sighted child, learn these concepts early in life, when they are easiest to learn, the recreation specialist may find it necessary to teach these basic concepts to the older child who has never learned them.

The child who is adventitiously blind, even if he has never watched a particular activity being performed, may be able to form a picture of it in his mind; the congenitally blind child cannot do this. Also, the totally blind child must learn about the whole through the sum of its parts, by touch. Because it takes longer to gather information in this manner and because it is often difficult to get a good sense of the whole from its parts, to integrate the parts into the whole, mentally, the blind child may need more time and verbal explanation to learn a new activity.

Activity Instruction and Leadership

Certain general principles for providing instruction will facilitate learning by visually impaired children. These principles, which have been acquired through experience by people who work with blind children and adults, have been successfully utilized. First, consulting with the child, a low vision specialist, a special teacher, and/or parent will help to determine what the child can see, the age of the onset of the visual condition (determining whether the child has the ability to visualize), and how the condition may have affected concept and skill development. It is also

helpful to know if low vision aids are recommended. With this information, the recreation specialist is ready to use the following methods.

1. *Give clear, concise, and consistent directions.* For example, when teaching a child to hop, say, "Stand on your left foot, raise your right foot, and jump in the air on your left foot."

Use directional words such as "right" and "left." Cite large landmarks in the playing area to guide a low vision child: "Walk to the exit door, go to the water fountain, and turn toward the window." Using terms like "quarter turn", "half turn", or "full turn" may be helpful to the totally blind person. Describe where things are by using the face of a clock for orientation, with the child at six o'clock: for example, the water fountain is at seven o'clock, 12 feet away. Use tactual, hands-on demonstrations with the verbal instruction.

2. *Allow the visually impaired child to be near enough to see or touch when demonstrations are given.* A child with low vision may be able to observe procedures if he is near enough to the demonstration. For the totally blind child or child with little usable vision, the demonstrator or some other participant may have to position the child's body or allow the child to touch another person in the correct position and give more verbal explanations. Allowing the child to perform the activity with individual guidance is also helpful.

3. *Go from the less difficult to the more difficult skills and break down skills into their component parts.* For example, to teach the child to catch a ball, begin by bouncing the ball to the child from a short distance away. Gradually increase the distance. Then decrease the distance again, but eliminate the bounce. Finally, increase the distance again.

Also, be aware of the child's previous experiences in recreation and other areas. Some visually impaired children have not developed activity skills because they were never given opportunities to participate in play. Thus, the recreation specialist may need to begin working with basic skills before involving the child in regular recreational activities.

4. *Limit playing space.* Table tennis is an example of a game with a limited area that a child with a narrow visual field may be able to enjoy. Playing games in a small gym or a handball court may facilitate greater involvement for the visually impaired child without greatly distorting the experience for the normally sighted participants.

5. *Slow the action.* For example, instead of a regular ball, a balloon may be used in a game of catch. A child with a field loss may be able to keep the balloon in the central portion of vision because it is moving with less speed.

6. *Use larger or smaller playing objects.* For example, a beachball can be used to play volleyball. If the child has an acuity loss he may be able to see the object when he is far away from it if it is larger than regulation size. Also, targets can be made larger or moved closer to the player. If the eye condition has resulted in limited visual field, it may be helpful to use a smaller ball or move the target further away so it can be seen in the field of vision.

7. *Use proper lighting and color contrast.* A ball can be taped with bright yellow/orange fluorescent or black tape, so that it contrasts with the floor and walls. A shuttlecock can be painted a bright color to contrast with a playing court. Colored tape can be used to mark the playing areas. Contrasting colors can also be used for table games.

As previously discussed, find out if the child sees better under certain lighting conditions. It is also helpful to discuss with the child what factors may be visually distracting. For example, some children are bothered by stripes, polka-dots, certain

plaids or colors, strobe lights, and lights reflecting off glass. Some children prefer incandescent light (yellow light) to fluorescent light (white light). Others may desire high intensity lamps to do detail work, while some children are bothered by the glare of the bright light.

8. *Consult with the visually impaired child not only to determine activity preference but also to decide which activities might not be safe.* As mentioned earlier, there are eye conditions that limit activity, a fact which should be discussed with the visually impaired child, or if the child is young, with a parent, physician, or low vision specialist. Consultation with these persons will give the recreation specialist a great deal of information about the needs, interests and abilities of the child. For example, children who are at high risk for detached retina should not participate in contact sports or diving. Children with diabetes may be advised to avoid certain sports or to increase their daily exercise gradually.

9. *Modify the rules of the game.* Rules may be modified to accommodate visual limitation but care should be taken not to alter the basic structure of the game if at all possible. (For example, in volleyball, the ball may be permitted to bounce once.) The visually impaired child will want the activity to remain as close to its original form as possible.

10. *Use special equipment.* In some cases, special equipment is desirable to facilitate the full participation of the child in a given activity. This equipment can be purchased from a supplier or can be developed by the recreation specialist. In archery, for instance, an auditory signal can be placed behind the target. When developing modified equipment, it would be advisable to seek the assistance of the visually impaired child.

CONCLUSION

Seeing is a complex process. Visual abilities such as central vision, peripheral vision, and binocular vision are used in all daily activities, including recreation. Knowledge and understanding of skills and their relationship to each activity, coupled with the knowledge of visual impairment, can help to prepare the recreation specialist to work with visually impaired persons.

The recreation specialist should have the competence and confidence to make the necessary modifications in recreation activities when these adaptations are required to meet individual needs of children. Consultation with the visually impaired child and/or parent, helpful in determining needs, interests, and abilities, is always a good beginning. In the past, visually impaired children have been limited to participation in stereotypic recreational activities, such as listening to the radio, reading, or playing a musical instrument. For the most part, these have been sedentary activities which, unfortunately, have not helped in developing the body strength and stamina needed by visually impaired children to cope with the often extra efforts required to perform visual tasks and other skills needed for full life participation.

Visually impaired children need to be exposed to a variety of recreational activities so that they may choose, according to their skills and abilities, rather than their limitations. The informed and skilled recreation specialist can provide these options.

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CHAPTER 3

Orienting the Visually Impaired Child to the Recreation Setting

By Monica Beliveau and Judith Rutberg

A primary goal of all persons working with disabled children is to facilitate the optimal level of integration of each child into programs and services available to all members of the community. To achieve such integration for visually impaired children in the recreation setting, the recreation specialist will need to know something about the principles and techniques of what is generally referred to as orientation and mobility. While it is the role of the orientation and mobility specialist to provide the primary training in these areas, the job of the recreation specialist will be made much easier if he is familiar with these basic concepts.

The first section of this chapter offers information one would need in order to understand what orientation and mobility are and how visually impaired children and adults learn to orient themselves and move safely in their surroundings. The next section provides practical "how to" suggestions for the recreation specialist attempting to facilitate orientation and movement of a visually impaired youngster in a recreation activity environment.

OVERVIEW OF ORIENTATION AND MOBILITY OF THE VISUALLY IMPAIRED CHILD

The concepts of orientation and mobility relate to the processes that the visually impaired child or adult uses to travel independently or with the aid of another person through the environment. This environment can be indoors or outdoors: at home, on the playground, on the school block, on a playing field, in a neighborhood, or on public transportation. To understand orientation and mobility processes as they relate to recreation requires that we begin with a definition of the two terms and a look at their application to a youngster with a visual impairment.

Orientation, or, for the purpose of this book, spatial orientation, refers to the knowledge of one's position in space at any given moment in time. A child who is oriented is able to use his general knowledge of the environment, as well as information gathered through his senses, to understand his position in his specific surroundings. Ori-

entation requires that the child incorporate the cognitive and sensory information in an organized manner so that his position in the environment will "make sense."

Imagine for a moment that a visually impaired child is learning her way through a recreation activity room. She will need to know that most rooms have four walls and that the door is usually not on the same wall as the windows are. She may recognize the location of the windows when she hears the sounds of the traffic outdoors or sees the rays of sunlight entering the room. She may notice the location of the door when she hears the sounds of footsteps in the adjacent hallway or when she sees the contrast of the brightly colored door against the walls. The child may feel the texture of the smooth floors under her feet or touch the soft mats that are stored against the harder surface of the walls. The motion of the muscles and joints in her legs will aid her in perceiving the presence of any tilts or slopes in the floor's surface. The child's sense of smell will also aid her in recognizing any odors that are particular to the activity area. The youngster who is well oriented to her surroundings is able to answer accurately the following questions at any given moment:

"Where am I (standing, sitting, moving) now?"

"Where have I traveled from?"

"How do I get to where I want to go?"

"What information will help me if I am lost?"

For most sighted children, spatial orientation is an unconscious and automatic process established through years of experience. Their vision allows them to spend limited energy on locating their position in most surroundings. They can move about their homes and other settings while conversing with a friend or thinking about interesting ideas and still remain oriented. Likewise, some alert and generally well-oriented visually impaired children can also maintain their sense of direction and position in space, especially in a familiar setting, without focusing undivided attention on their locale at every moment.

It is important to remember, however, that most visually impaired children need to have *more* awareness of their position in the environment than do their sighted peers in order to remain oriented. This is especially true during activities requiring several changes in body position. One will find, however, that many visually impaired youngsters can learn to anticipate changing spatial relationships of themselves and objects (or other people) while playing ball, skating, or doing other complex movement-connected activities.

Mobility refers to safe, graceful, and efficient movement through the environment. Vision allows sighted children to anticipate and perceive obstacles in their path so that they may adequately protect their bodies from injury, organize spatial concepts, relate part-to-whole concepts, develop continuity of thought, coordinate body movement, establish space-time relationships, and much more. Body coordination and control allows them to be graceful in motion. Efficiency in movement is goal-directed and purposeful and therefore requires good orientation skills.

The young visually impaired person can use six methods to provide for safe movement through the environment:

1. Human (sighted) guide
2. Arm and hands
3. Vision with or without optical aid
4. Long cane
5. Dog guide
6. Electronic travel aids

Each of these protective means must precede movement if they are to aid the child in anticipating and perceiving obstacles in her path. A visually impaired youngster may use any one of these means as her sole mode of protection for travel in a particular environment. Many are often used in combination for travel in any one setting, but the dog guide and long cane cannot be used simultaneously. Individual abilities and preferences, as well as the type of activity, will determine which of the methods are used.

Human Guide: The human guide or sighted guide method involves, as the name implies, the use of another person for protection. It is the least independent and most secure mode of travel, the one which is most universally used by visually impaired people at one time or another. The child is in constant physical contact with the sighted guide, who must remain in front at all times.

Arm and Hands: The visually impaired child can use his arm and hands as he moves to provide protection for the upper torso and waist areas. These techniques are usually used only in a familiar indoor setting because they provide limited protection for the child: specifically, he is unprotected from objects below the waist or those beyond arm's reach.

Vision: Many visually impaired children have some vision they can use to anticipate and avoid objects and to orient themselves to their surroundings. Some may only be able to see the gross outline of objects at close range; others may be able to see objects in the distance more clearly but may bump into a person on either side. Some children are able to use their vision effectively for safe travel in well lit areas but require an additional means of protection in dimly lit or dark areas.

With or without the aid of a supplementary mobility method, a visually impaired child can often be taught to scan the environment visually, interpret what is seen, and move along the safest path. In some situations, low vision optical aids (such as magnifiers, telescopes, tinted lenses, and special spectacle-mounted or hand-held devices) may be prescribed to improve the child's visual functioning.

The purpose of these aids varies. Some of the optical aids, tinted lenses for example, can be worn by the child while walking, running, or playing. Telescopes, on the other hand, are to be used only while the youngster is stationary and involved in such activities as watching a ball game, watching television, or trying to read a sign. Some optical aids for improving near vision can be useful in recreation and leisure activities such as stamp or insect collecting and table games or hand crafts. Telescope aids might assist a child in participating in activities such as bowling, golf, archery, or photography. All optical aids must be prescribed by an eye care specialist (optometrist or ophthalmologist) who will give the child training in their proper use. Once the recreation specialist understands the purpose, use, and limitations of each aid, he will be able to assist the child in exploring leisure activities for which a particular aid may be of help.

Long Cane: The long cane, probably the most popular mobility device, aids the visually impaired youngster by extending his sense of touch. Canes can be either rigid or collapsible. They are lightweight, frequently made of aluminum or fiber glass, and carefully prescribed for the user according to his height, length of stride, reaction time, and travel needs. When used in the prescribed manner, the cane provides information about the area approximately three feet ahead of the user.

Dog Guide: The dog guide provides protection, a safe and speedy means of travel, and companionship. Although the image of a visually impaired person with a dog guide is very familiar, only about one percent of the total visually impaired population travels with one. Also, most dog guide users are over 16 years old, mature

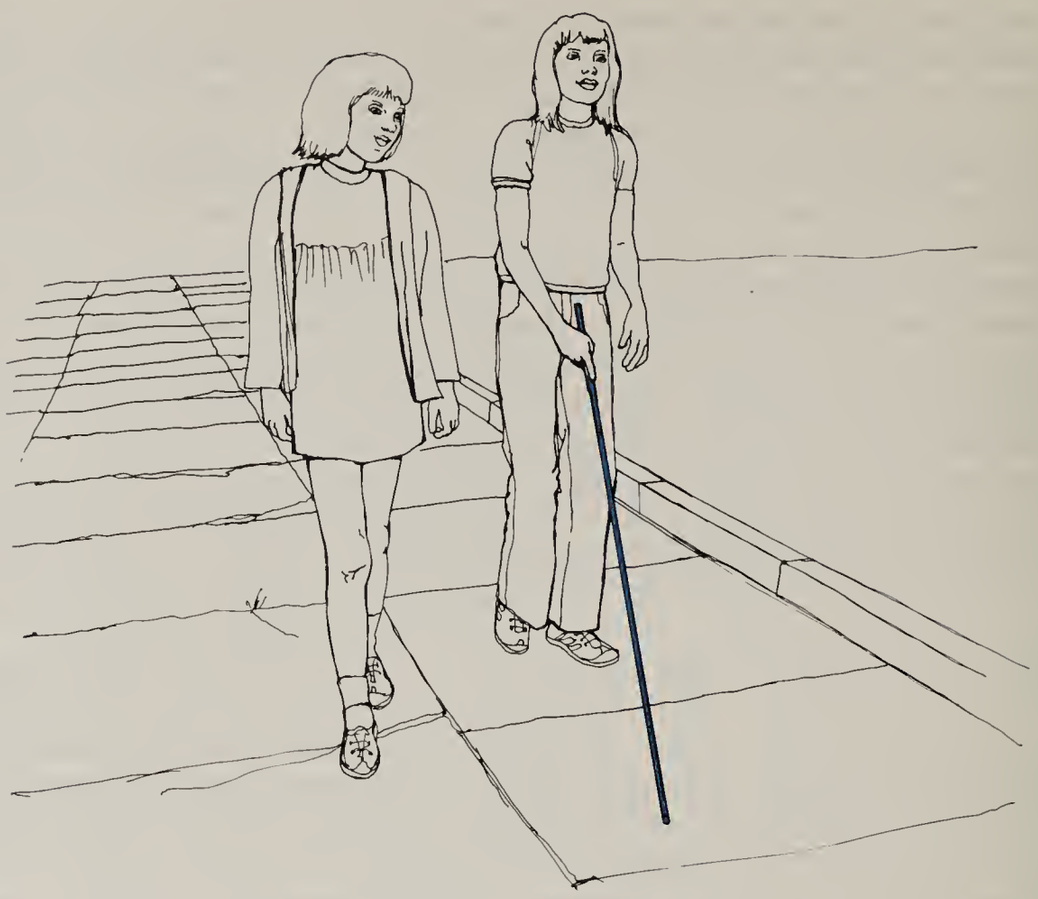


Figure 1. Long cane technique.

enough for the responsibility of caring for the animal. The dog and his master work as a team, the dog protecting the master by avoiding obstacles and dangers, and the master remaining oriented to the environment at all times.

When it comes to many recreational activities, it may be more efficient and practical for the dog to rest in an out of the way place while the youth engages in vigorous or complex activities such as square dancing, ball playing, and ice skating. The recreation specialist should discuss with the dog guide user the appropriate and practical handling of the dog guide before planning activities.

Before offering assistance to the young person using a dog guide, it is important to ask first whether she wants help. The dog is "on duty" when the user is holding the harness and should not be petted or otherwise distracted at this time. Also, it is important to remember never to take a dog user's left arm while she is holding the harness. Any of these actions could upset the dog.

Electronic Travel Aids: These are the most recent mobility devices available to children and adults with visual impairments. Currently less than 1 percent of the visually impaired population makes use of them for independent travel but their potential usefulness may be much greater in the future.

The different electronic travel aids emit either ultra-sound waves or laser light beams into the environment. When these sound waves or light beams contact an object in the traveler's path, the electronic device produces an audible or vibratory signal. These aids provide information about the environment ahead of the user, in some cases up to 15 feet in front of the body; this enables the youngster to find a clear space and adjust the path of travel prior to making contact with an object. At present, there are four electronic travel aids on the market: the Sonicguide, Mowatt Sensor, Pathsounder, and Laser Cane.

HOW THE VISUALLY IMPAIRED PERSON MOVES THROUGH THE ENVIRONMENT

The degree to which the visually impaired child will be able to find her way safely, efficiently, and gracefully in the recreation environment depends upon three major factors: (1) the child's own capabilities and attitudes toward independent movement, (2) the characteristics of the specific environment in which she plans to move, and (3) the complexity of the activity involved. It is important for the recreation specialist to understand each of these factors and their effects on independent movement. This will allow her to aid the child in the enjoyment of activities in the safest, most efficient, and graceful manner possible.

An understanding of the child's capabilities and attitudes toward independent movement can be achieved by observing and by informally assessing her sensory-motor and cognitive abilities. Information about her attitudes and ability to function independently can also be gained through discussion with the parents, teachers, orientation and mobility instructor, and other professionals.

Sensory-motor abilities involve the use of hearing, vision, touch, "muscle memory" and "muscle sense" (kinesthesis), and smell to aid in finding direction. Cognitive abilities relate to one's conceptual awareness of one's body and the surrounding space, as well as the application of this knowledge of particular environments to other similar settings. Particular sensory-motor and cognitive abilities are important for good orientation and safe, efficient movement.

Sensory Motor Abilities

Sense of Hearing

The visually impaired child's ability to use hearing is extremely important for safe, well oriented movement. He should be able to recognize a particular sound and discriminate between or among two or more sounds. For example, the youngster can identify the sound of footsteps during a square dance and can recognize the difference between those sounds and the sound of a fiddle being played and hands being clapped.

It is also very important for the young visually impaired child to be able to tell where a sound is coming from and the approximate distance between the sound source and himself. This skill is called sound localization. The child who is able to localize sounds will know, for example, that the sounds of footsteps are on his left and the fiddle sounds are coming from in front of him, thus aiding him to get an image of his own position in space. With the ability to perceive distance from the sounds, his "picture" of the locale will be even more precise.

This ability to localize sounds accurately depends on binaural hearing; that is, balanced hearing in both ears:

> If you drop a penny, you don't have to look to know its approximate location. If it drops to your left a short distance, the strength of the sound wave gives you the approximate location. As the waves from the penny spread outward, they grow weaker and weaker, until they die out altogether. If they didn't, the sounds of the penny could be heard a thousand miles away.
>
> If the penny rolls and comes to rest under a table, you still know where it is because you were able to track the sound of the roll. How do you know where the penny is? When the sound waves came from the left side where you dropped the penny, they hit the left ear first. By the time they got to the right ear, they were a little weaker. This means the right ear doesn't hear it quite so loudly. This difference in loudness is very slight, but it is enough to help you tell where the sound came from. . . . Close one ear and you will have trouble telling where sounds come from (Webster, 1977, p. 93).

The usefulness of precise sound localization in the recreation setting becomes particularly evident when you observe visually impaired children playing kickball with

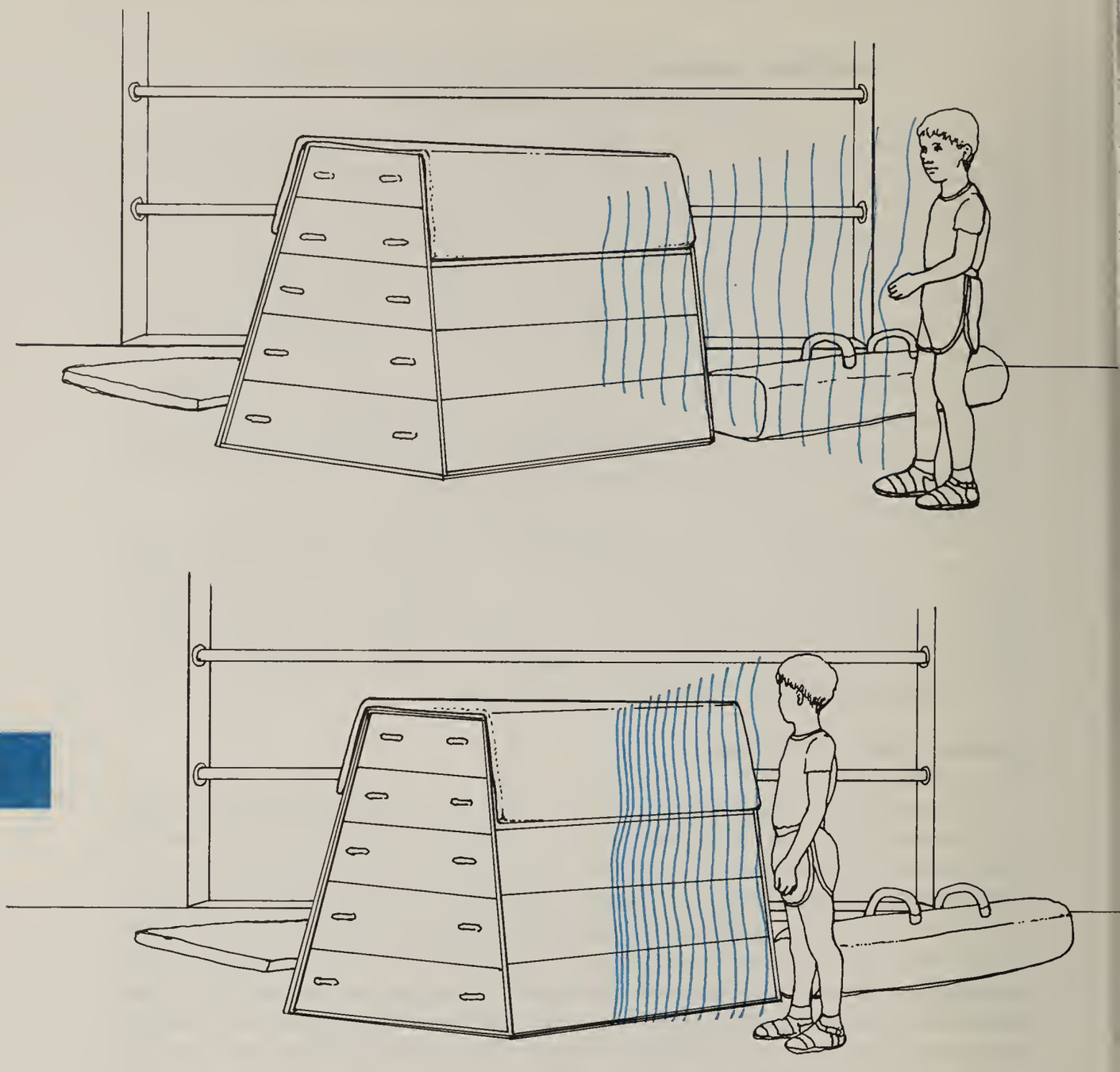


Figure 2. The use of echo detection for object perception by a blind child.

an audible ball or basketball with a beeper on the backboard, or skiing a slope, following the forward person's beeper or bell. These children are using auditory-motor coordination. The importance of this skill is analogous to the stress placed on eye-hand and eye-body coordination in the activities of normally sighted children.

For many years, it was believed, incorrectly, that visually impaired people had a sixth sense. This concept developed because many totally blind people were able to stop before they ran into objects. You may have noticed some totally blind youngsters in a group recreation activity who were able to avoid some objects before making physical contact. Some of them may snap their fingers, clap their hands, whistle, or click their heel cleats as they walk to help them determine the location of a wall or an opening to a room or different hallway. These children are making use of their hearing to detect echoes from the sound waves that are reflected from the surface of the object. This skill is called echo-detection.

> Echo-detection is nothing more than listening for the self-emitted sounds that are rebounding from an object. As the blind person walks closer to the wall, the sound of the echo caused by the clicking of the fingers changes. This slight change in the sound of the echo, or the reflected sound, tells him he is nearing the wall. . . .
>
> The blind person detects the change in pitch of these sound waves bouncing off the wall as he walks down the hallway. When he passes an open door, there is no surface for the sound waves to bounce off of. It gives the blind person a different sound although it is a very subtle one. The same principle occurs when a person walks toward a large, flat object. As he walks closer, the pitch changes and helps him sense the wall (Webster, 1977, p. 95).

The visually impaired child's effective use of echos produced by reflected sound depends on his sense of hearing. Specifically, it requires that the child be able to hear high frequency (i.e., high pitched) sounds. If the child does not have a hearing problem, echo-detection can be learned with much practice. The sound reflective quality of the surface being located is also important. It is much easier to detect echo changes from large, hard surfaces (walls) than from softer, less dense, or small surfaces (e.g., people, paper streamers, and cloth barriers).

Vision

The visually impaired child may be able to use residual vision to help him find his way safely, efficiently, and gracefully in the recreation setting. If the child does have some sight, it is important to observe his movements and to talk to him about his ability to use vision effectively. It is extremely important to realize that each child's visual functioning may vary from day to day and from one setting to another. This variability can be caused by a number of factors, both within the child himself and the setting in which he is moving. Some of the internal factors that may cause visual ability to vary are stress, fatigue, diet, the side-effects of medication for the visual condition or for other physical problems, and the nature of the visual condition itself.

One of the most important environmental factors that can affect visual functioning is the amount and type of illumination in a given area. Many visually impaired children find that their vision is greatly reduced by the glare of sunlight outdoors on a bright day. Some partially sighted children find that fluorescent lighting indoors improves the clarity with which they see objects, while others experience the opposite effect. The color, size, shape, complexity, number, and location of objects in a particular setting are other environmental factors that can influence the ability to use vision to get one's bearings and move smoothly through an area. The visually impaired child should be encouraged to tell the recreation specialist when he can and cannot use his vision to help him and when he requires additional assistance.

Each visually impaired child has his optimal level of visual efficiency. An understanding of this potential will assist the recreation specialist to provide the appropriate visual cues for orientation to the recreation activity and safe movement in the activity area. For example, one child may be able to see a row of lights in the ceiling of the gym, which may help him to walk a straight line. Another visually impaired child may see the contrast of a dark object against a lighter surface, such as the campfire against the ground or the bleachers against the sky and move around it if it is blocking his path.

Some children may be able to identify an object (e.g., the soft drink machine) by its size and shape and use it to help them recognize their location. Other children are able to identify the colors of certain walls, floors, or objects along their paths and use these cues to maintain orientation. Most children with impaired sight will find it easier to identify bright colors such as red, yellow, and orange than to discriminate between shades of dark colors (navy blue and brown) or among pastel colors. Some visually impaired youngsters are able to see finer details and can, for

example, read the room number on a door or recognize the facial expression of the recreation specialist. Again it is important to emphasize that each child's visual capabilties will be unique and that an individual child's visual functioning may fluctuate from day to day and from one setting to another.

Touch/Tactile Sense

The visually impaired child should be able to use the sense of touch to help find his way in a recreation setting. Tactile information, which is useful for orientation, is received mainly through the sense receptors in the hands, feet, face, and neck but can be transmitted through any part of the body. When moving from a sunny area to a shady area, the child may feel the change in temperature on his face and neck. The tactile sense receptors on the face and neck may also feel a breeze, helping him know that he is standing near an open window or door. A cross-breeze at a certain corner along a jogging route or hiking path may provide the youngster with a cue to turn and continue in a new direction.

The child should be able to use his sense of touch to identify various surfaces under foot, such as the smooth floor of a bowling alley, the grass surrounding a playground, or the sand at the beach. He should be able to make distinctions between different types of surfaces, such as change from gravel to grass, or from tile to cement in a swimming pool area.

The child may be helped to identify certain areas in the recreation setting by using his hands systematically to touch the surfaces of the surrounding walls or objects. He should be able to recognize tactually objects and the differences among the many surfaces found indoors and outdoors. The child should also become familiar with the differences among textures so that he may identify an object or a surface because it is rough or smooth, soft or hard. For the child with some useful vision, the tactile sense can often help to confirm and reinforce what was perceived only partially by his limited sight.

Kinesthetic Sense

The kinesthetic sense is our "muscle sense" or "muscle memory." Through the movement of the muscles, joints, and tendons in his body, the visually impaired child can feel kinesthetically whether he is running up a hill, making a precise turn for dancing, or walking the correct distance to reach a familiar boundary. The use of this sense often requires little concentration once the child is made aware of it.

> The kinesthetic sense is an awareness or memory of movement—a sense that tells us what our muscles are doing. . . . Muscle memory is used almost as second nature to explore, to learn, and to store concepts in the various centers of the brain.
>
> . . . If you pick up a bucket and know how heavy it is, you have used your muscle sense. You can eat your lunch and rely on your muscle memory to deliver your fork to your mouth (Webster, R., 1977, p. 98).

The visually impaired child's fingers, arms, hands, and legs make use of the kinesthetic sense. The more opportunity the child is given to explore his environment and experience the feel of his body in various positions, the more refined this sense will become. The kinesthetic sense is extremely important for learning and for performing accurate left and right turns. For example, the child learns to "feel" kinesthetically when he has made a precise turn at a street corner or in a hallway.

Kinesthesis also helps the child to judge the distance he has walked and the distance between objects. Without this muscle memory ability, the youngster would not be able to learn how far it is from one end of a swimming pool to the other, or from the entry hall to the crafts room, or from third base to home plate on the softball field.

Smell/Olfactory Sense

The visually impaired child can use the sense of smell to aid in orientation. He should be able to identify certain odors that are common to the environment. For example, one may be able to locate the swimming pool by its chlorine odor; the crafts room by its smell of clay, leather, and paint; or the campfire by its smell of burning wood. A useful and fun game is to walk through activity areas with the child and ask how many smells he can identify particular to each area and to have him memorize their sources.

For the child with some vision, information derived from the kinesthetic sense can help to confirm and reinforce that which has been perceived through limited vision.

Cognitive Abilities

Body Image

The visually impaired person must have accurate concepts of his body and the space around him in order to participate effectively in certain recreational activities. Body image relates to the individual's ability to recognize and identify body parts and their functions as well as to knowledge of body planes: front/back, up/down, and laterality (left/right).

Space-Spatial Awareness

The visually impaired child also needs to understand the relationship of his body to the environment, concepts such as next to, near, far, above, below, over, in front of, in back of, ahead, behind, across, and through. He should be able to understand the meaning of statements and directions such as, "You are standing *between* the tree and the lake," or "Walk *toward* the goal line."

The youngster needs to have a knowledge of the relationship of objects to each other to be able to form a picture of his location from such statements as "The wood is *in front of* the box"; "The gymnasium door is *next to* the lockers"; "The fence *surrounds* the playground."

The child will be able to find his way most efficiently if he has a knowledge of the environment in general and can apply this knowledge to new environments. It is extremely helpful for him to be aware of consistencies in the environment. For example, most rooms have four walls; light switches are usually located on the wall to the right of the door opening; theatre aisles usually slope downward as you move toward the stage; elevators and stairwells are usually located in the same place on every floor of the same building; and all baseball, basketball, and other common ball games have fields or courts that have standard shapes. As the recreation specialist begins to think in terms of these consistencies in recreation settings, he will gradually find that helping the child with vision problems to orient himself is easier if he can refer to similarities or comparisons from one setting to another.

ORIENTATION TO THE RECREATION SETTING

A well oriented visually impaired child will have greater independence and be able to enjoy and participate more fully in recreation activities than a child who is not well oriented. However, effective orientation can be time-consuming, particularly when the recreation specialist and the child are just beginning to know each other. A thorough assessment of the youngster's functioning, as discussed in the previous section, will make it easier for the recreation specialist to adapt the orientation techniques to the individual child. While the specialist in recreation by no means has responsibility for developing the child's overall orientation and mobility

skills, knowledge of and attention to these areas permit him to concentrate more effectively on recreation planning.

Assessing the Recreation Environment

Allowing the youngster with a visual impairment to move independently in the recreation setting should not cause undue anxiety about the safety and appropriateness of the environment. At the same time, however, it will be helpful to assess the setting and make any arrangements that might enhance the visually impaired child's safe and efficient movement and participation in as many activities as possible. When assessing the environment, one should be concerned with two factors: the safety of the setting and the availability of landmarks and cues that will assist the child in maintaining orientation.

For the most part, the safety precautions that are taken for the visually impaired child are similar to those taken for all children. For example, doors and cupboards should be completely open or completely shut. If possible, it is best to establish a consistent pattern with regard to doors so that the child will learn to use the appropriate protective measures when moving through the recreation area.

Special attention should be given to unexpected or barely seen safety hazards such as guy wires (support wires or ropes for tents, canopies, or gymnastic equip-

SAMPLES OF LANDMARKS

General Indoor Spaces	General Outdoor Spaces
Columns	Intersecting paths
Information desk	Surface changes from grass to dirt to cement
Vending machines	Trees and Shrubs
Concession stand	Fences and walls
Telephone booths	Telephone poles and sign posts
Planters	Water edge of lakes, ponds, rivers
Stairs	Shelters/outdoor restrooms
Elevator banks	Fountains
Escalators	Telephone booths
Revolving doors	

Indoor Recreation Areas	Outdoor Recreation Areas
Smooth hardwood gym floors	Goal posts on a playing field
Markings on gym floor	Bleachers
Gym equipment and furnishings—bleachers, nets, gymnastics apparatus	Track surface including runways and pits for long jump, high jump, pole vault, etc.
Benches and lockers in locker rooms	Swings, slides, sandbox, other stationary playground equipment
Swimming pool ladders and diving boards	Gradation of pitchers' mound bases, fence around batters' box on baseball diamond
Sink in crafts room	Gradual decline to waterline at beach
Barre on wall in exercise room	Sound of breaking waves
	Docks

ment). Mooring lines for boats or objects on a path that are the same color as the rest of the area, such as stone steps on a stone walkway, also have potential to impede movement.

It may be desirable to rearrange the position of the equipment in the recreation area. If any rearranging is done, however, tell the child about the changes and, if necessary, re-orient him to the area. It may be helpful to have the child assist the recreation leader with the movement of the equipment. It is usually desirable to give the youngster time to explore and make a mental picture of the new arrangement.

> As the [child] is helping move. . .[equipment], relate the direction of the move from the original position. . . . Since it is very difficult to give instructions in clear, concrete, intelligible terms. . . be careful in [your] choice of words. Vague terms such as "here," "over there," yield little results and are confusing. As the [child] is in the process of moving. . .[equipment], use such terms as "right of," "left of," "in front of," etc.
>
> Also, use this opportunity to make the [child] feel a part of what is taking place. . . . As much as possible, give verbal directions in conjunction with the tactual input which the [child] is receiving, while [he is] in contact with some piece of [equipment] (Randolph, 1971, p. 15).

It is also beneficial for the recreation specialist to assess the physical environment to determine those landmarks that will assist the child in finding his way and joining in the activities most effectively. A landmark is any familiar object, sound, odor, temperature or tactual or visual cue that is easily recognized and has a known and fixed location. Landmarks should be relatively permanent in the environment so that the child can consistently use them to get his bearings. A brightly colored wall at one end of a room, for example, would serve as a good visual landmark. A brightly colored equipment box that is moved frequently to different locations in the play area would not be a useful landmark.

Good orientation cues might include the sound of music in one room (if it is consistently present), the traffic noises at the right side of the bleachers, the red sign outside the crafts room, the odors of good cooking in the lunchroom, the cool breeze near the lake, the slippery floors in the pool locker room, and the sound of pins clicking to one side of the bowling alley.

Some General Guidelines

Because of the wide range of activities offered in most recreation settings, the recreation specialist will have occasion to provide many different types of orientation to a visually impaired child. To be effective, orientation to any type of setting must be systematic and consistent. The methods and language used, however, may differ from child to child, depending on different needs and abilities. All persons involved with the child should make an effort to use the same terms consistently to orient the child.

As previously mentioned, the child should be helped to use all senses to become oriented to an area. If a youngster tends to rely on one sense more than others, the dominant sense should be emphasized, but the other senses should not be neglected. If orientation clues that relate to each of the senses are offered, the child will have the means for reinforcing what his dominant sense seems to be telling him. In addition, he will appreciate his environment more fully through all his senses, as his sighted playmates do.

Too often a visually impaired child is taught only to use the sense of touch. Then the person orienting the youngster is surprised to find that he "never noticed" sound and other cues in the area. For example, children moving noisily toward a locker room after exercise class may be helpful for a visually impaired child learning the route from the gym to the locker.

Use of Maps

A few words should be said about the use of maps. Some children with limited sight find maps of a new area helpful; others find them confusing. Much of the reaction to maps depends upon whether the children are able to transfer the two-dimensional "picture" to the actual area. For some children the difference in scale and dimension between the map and the real area impedes their understanding of the map's information.

Whatever the individual child's reaction to maps, it is true that maps provide the most useful and generally practical method of orientation to all types and sizes of recreation settings. Because the recreation specialist might be wise to use some type of mapping to orient the visually impaired child to reaction activities, it is important for him to be familiar with some of the most common and successful types of maps. It is also important that he be aware of what the child can be expected to understand prior to investing the time and energy in making a map.

Tactual maps may be made of any number of different materials. Some that have been used successfully are cardboard shapes on felt, clay forms on cardboard, smooth wood strips and shapes nailed to flat board, toy-construction sets such as *Lego* blocks, and felt or sandpaper forms pasted to heavy paper. For children who have vision, these materials can have color contrasts or be in black and white. The important thing is that there be strong contrast of texture or color between the figures and the background of the map. Using very thick black or red felt-tip pens on white or, preferably, light yellow paper is successful with some low vision children. It is necessary to experiment with different materials and different colors in order to find the most effective methods for each child.

Whatever the materials used, there are a few rules for making and using successful maps.

1. Maps should be simple and uncluttered. Only the major information should be included, such as the outline of an area or the shape of a route. Omit unnecessary details and indicate only the most important and useful cues or objects.
2. The symbols used to indicate special objects or details should be simple, known to the child, and easily identifiable either by touch or sight. Examples are simple geometric shapes such as small balls or cubes.
3. Tactual materials should never be sharp. They should have different textures or enough differences in depth for different parts of the map to be distinguished easily from one another. The different parts of the map should not move or slip while the child is exploring them tactually.
4. In general, tactual maps should be placed parallel to the table edge while the user sits perpendicular to the edge. Often, poor posture or haphazard placement of the map can cause distortions in the child's understanding. For example, a straight line might appear diagonal if the map were placed at a slant in front of the child.
5. For the child with vision, lighting, seating position, and position of the map are extremely important. Each child will vary, however, in his requirements and should be allowed to choose the posture and manner of positioning the map that allow him to use his vision most effectively. Illumination is so important that the child should be given several options as to the degree of light he can have and the location of the light source. For the child with some vision, the instructions for positioning the map (guideline 4) may not hold true. For example, the low vision child may need to bend over or lift the map to his face or move his head or body to a different position to see it most effectively. In general, if the child with some vision is given the encouragement and freedom, he will ultimately find his best viewing and lighting position.

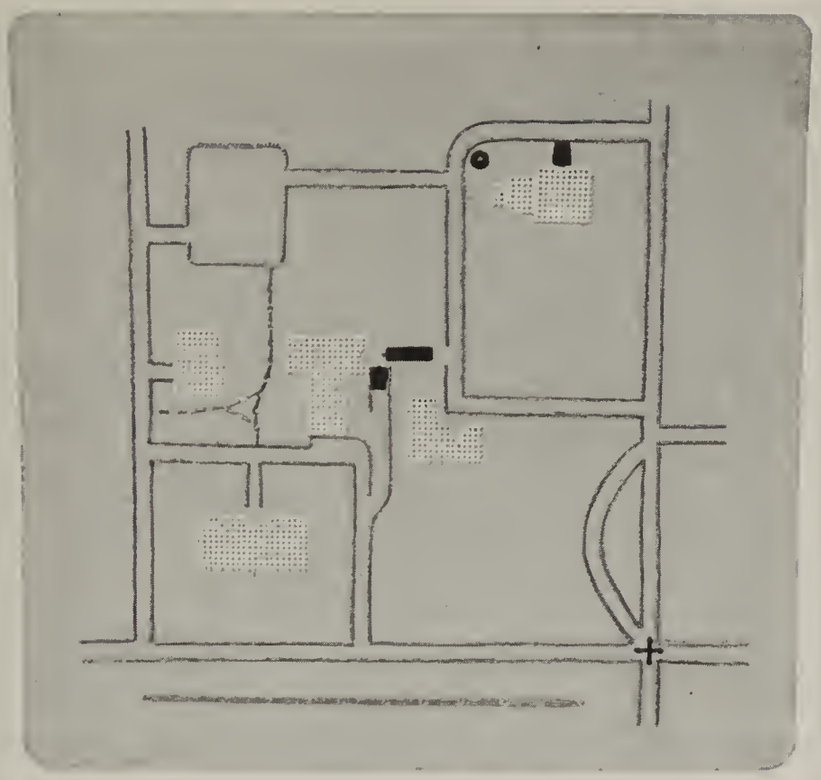


Figure 3. Map master made from kit.

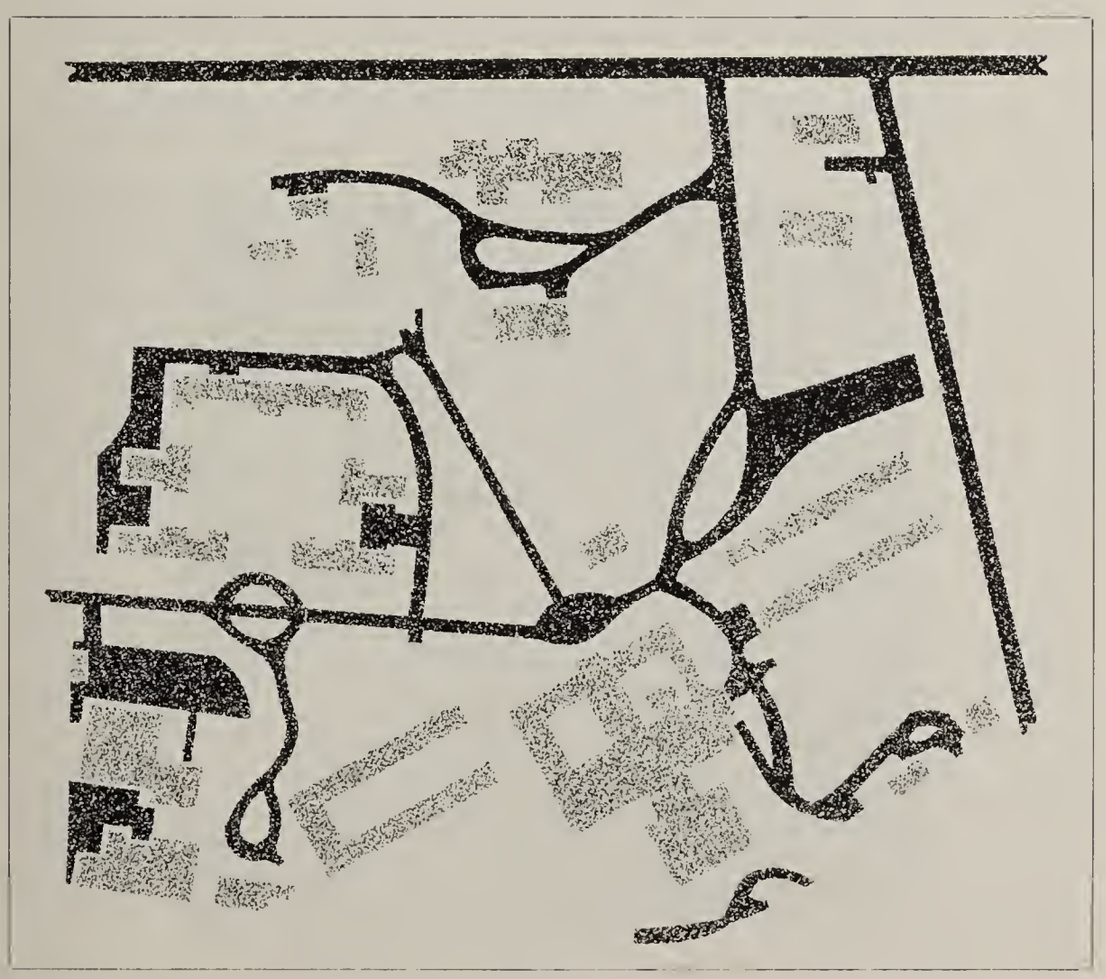


Figure 4. Building and paved areas (driveways and parking lots).

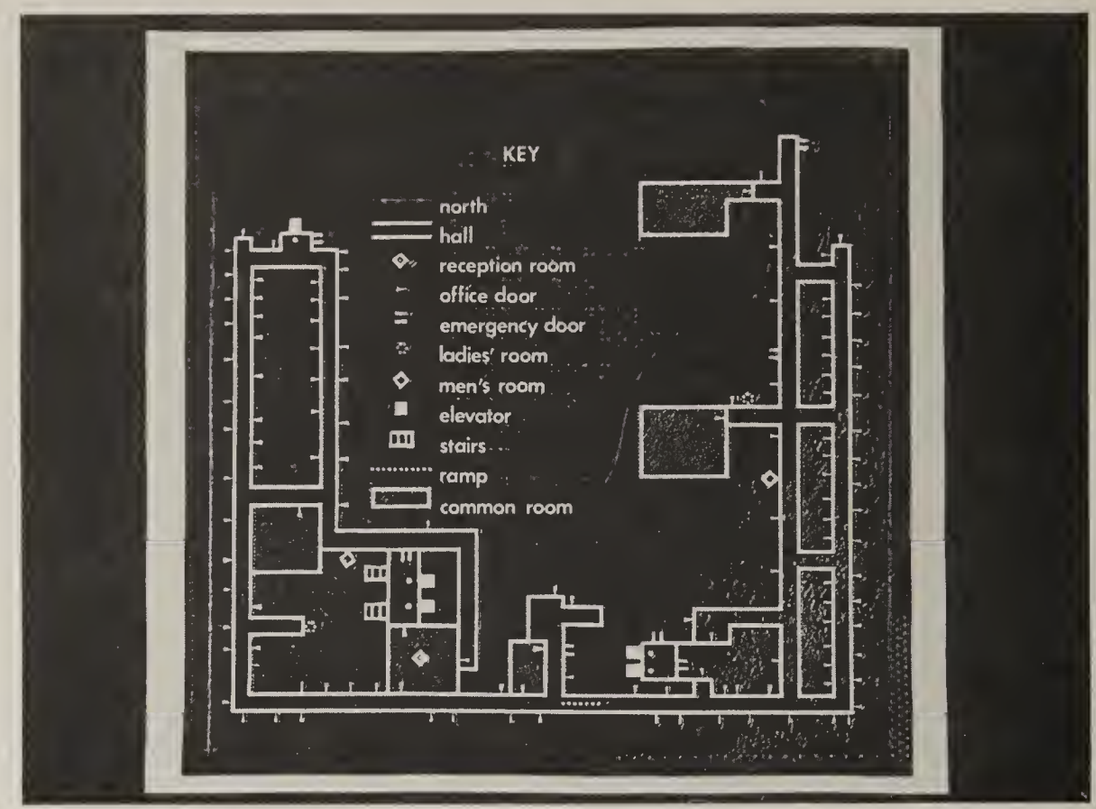


Figure 5. Master for floorplan of Massachusetts Commission for the Blind headquarters using kit of map making parts.

Figure 6. Raised line drawing board with student drawing a conceptualization of a room shape and positions of furniture in room.

6. Familiarization with any map should immediately be followed by familiarization with the area represented by the map. In this way, the child will be able to transfer the knowledge gained from the map to the real situation. If the map is portable, it is often helpful to bring it along for reference before, during, and after orientation to the area itself.

For a visually impaired child, the entire process of orientation is, in a sense, one of "mapping." A sighted child has the advantage of forming a visual map of an area rather quickly. The following is an example of how a blind child does his "mapping."

> He does use his other remaining senses, but they take more time than vision. The blind person before traveling in a room with any ease and familiarity must first investigate the room by determining where all the objects and open spaces are. After investigating all the possible relationships between the door, the four walls, the objects in the room, and the open spaces, he fits them together and comes up with an organizational plan, or we call it a map, that he can use in traveling about that area. This map, educators refer to it as a tactual-kinesthetic image, he carries with him in his memory (Webster, 1977, p. 86).

The low vision child must add whatever visual information he can gain of the area to his total picture.

Besides outlining travel routes, maps can be most useful and practical for explaining standard playing fields in games such as baseball, tennis, and basketball or for outlining a stage set and furniture.

Reference Systems

As discussed previously, consistency of language and terminology when orienting a visually impaired child is important. Equally important is the manner in which reference systems or points are used. If the child demonstrates understanding of the use of compass directions, the recreation specialist can use them in orientation because they are universal and can often prevent misunderstanding of direction. Prior to using them, however, find out if the child can use compass points as references when he is facing in all four compass directions. Frequently, one will encounter a child who can only relate to compass directions when he is facing north or who mistakenly thinks north is always in front of him and south always behind him.

If the child cannot use compass directions effectively, and most children cannot, the recreation specialist must set up a reference system that he can understand. The easiest method is first to determine the boundaries of the area (room, hallway, park, playing field, playground, gym) to which the child must become oriented. One or more stable, permanent landmarks can be used to identify each major part of the boundaries.

Suppose a child needs to be oriented to a gymnasium. After examining the area, the recreation specialist would determine which landmarks for each boundary would be the most meaningful to this particular child. For example, one wall or side of the gym might be called "the front door wall;" another, "the mat wall" (where the mats are hanging); another, "the locker wall." The important consideration when using this simple method is to use the same "labels" consistently in referring to the wall or boundary.

Imagine using this method to orient a child to a playground. The reference system might be something like this: "the sandbox side of the park," "the street side of the park," and "the swings side of the park." The obvious point is that whenever directions for orientation are given to the child in the future, the same reference system will be used.

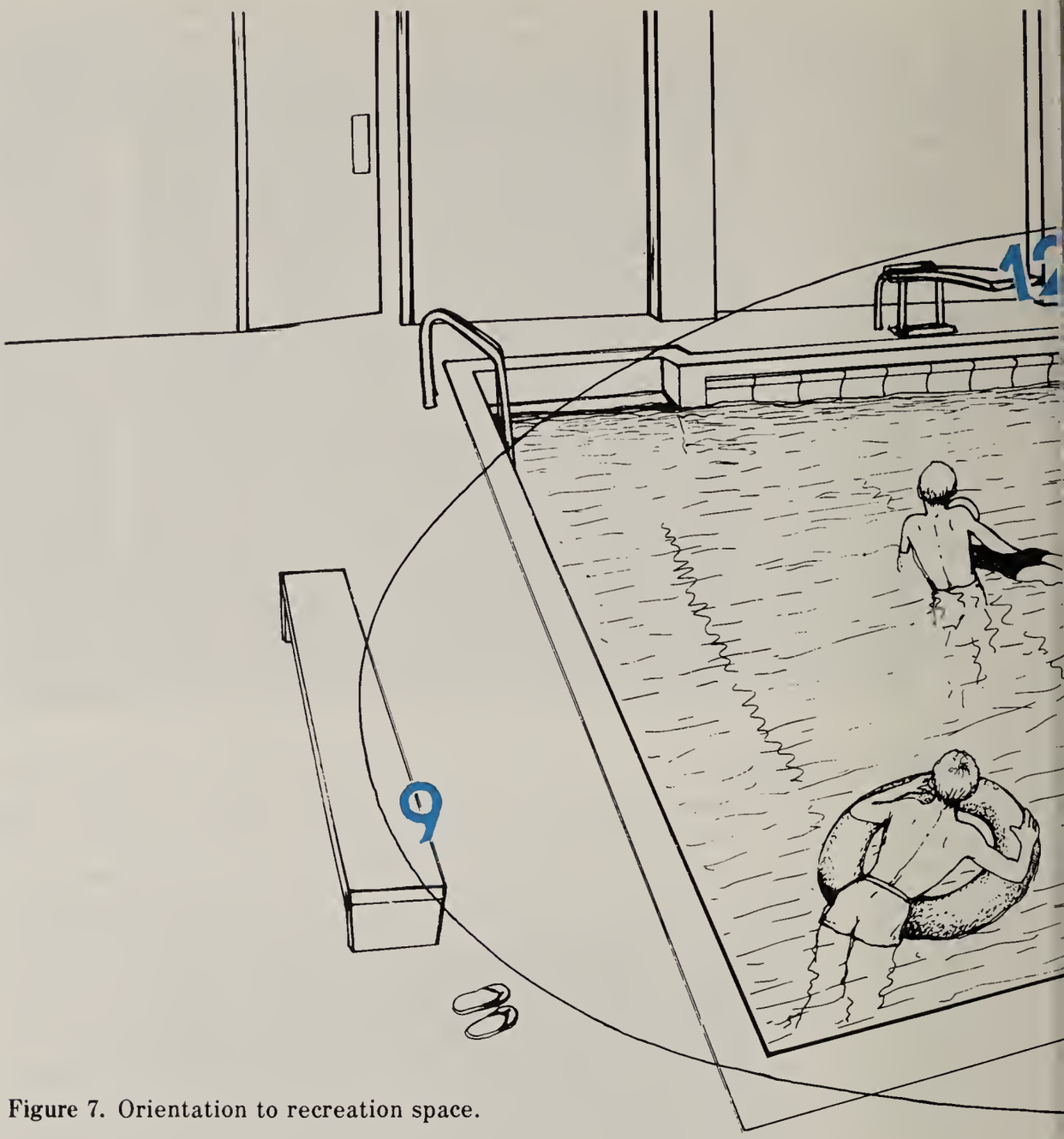


Figure 7. Orientation to recreation space.

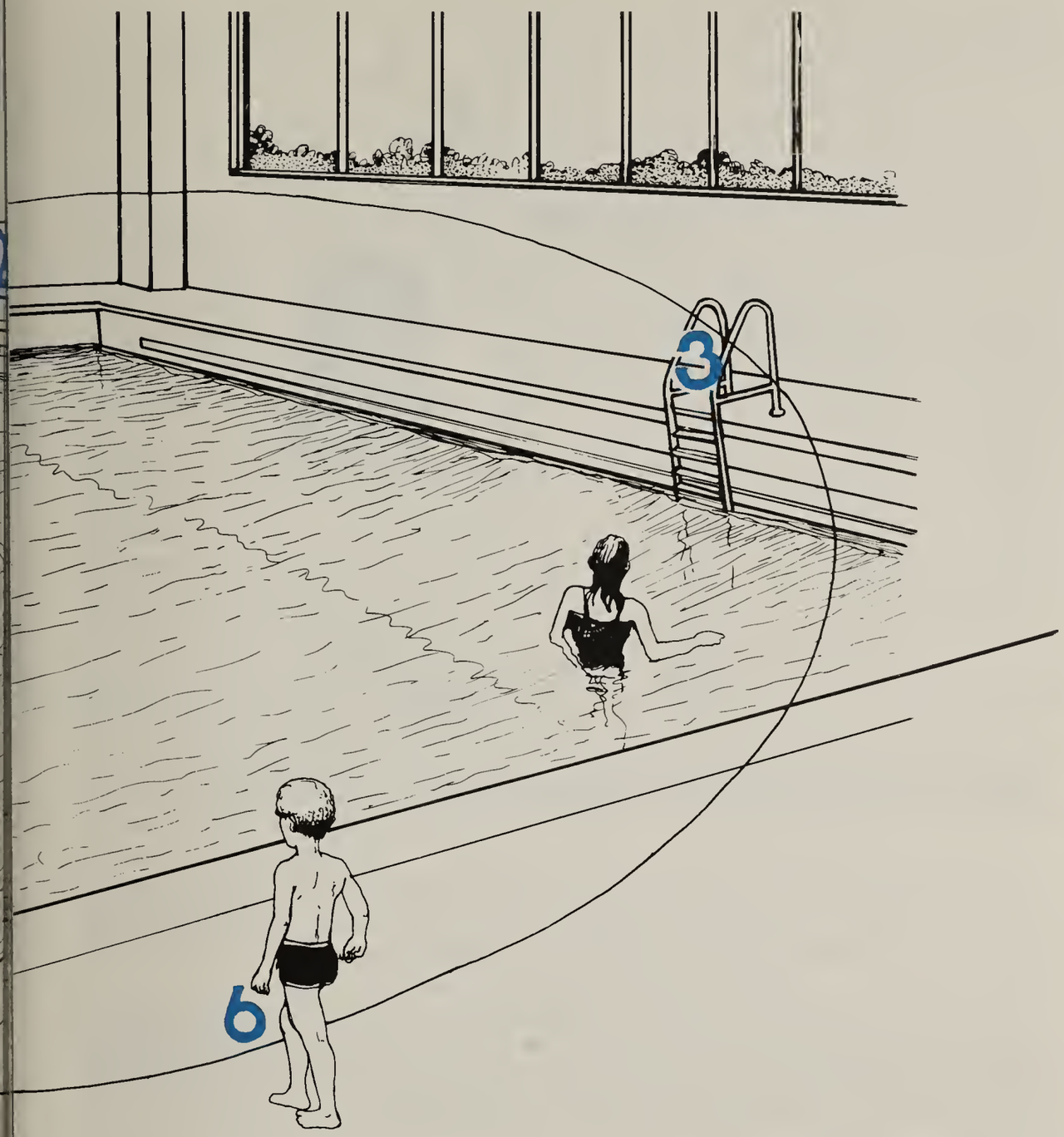
Orientation to a Room

The most effective method involves five steps:

1. Provide a general familiarization: describe simply the general dimensions (length, width, height of ceiling) in whatever terms are appropriate to the child's age and levels of understanding and interest.

2. Have the child stand in the doorway, facing into the room, and identify the boundaries (normally four walls) using either compass directions or another reference system. ("You are facing the window wall; to your right is the locker wall; to the left is the wall with the couch;" or "You are facing the north wall; to your right is the east wall; to your left is the west wall"). Often a combination of compass directions and descriptions is the most effective.

3. Starting at the door, have the child walk around the entire perimeter of the room until he reaches where he started. While he is walking along the perimeter,



identify each wall, using the chosen reference system or systems. A low vision child should be encouraged to use his sight to guide him and help identify landmarks along the perimeter. A blind child should be told to trail the perimeter with his hand to guide him and to explore landmarks tactually.

4. Using the door as the starting point and major point of reference, have the child move from the door to the objects in the room and then from each object back to the door. This will help the visually limited child build a "kinesthetic map" of the room by using his muscle memory. Return to the door and have him point to and describe the objects he has just explored while standing still at the doorway.

5. Once the child demonstrates a working knowledge of the room, choose a second reference point and repeat the first four steps. For example, if the gate to the playground is used as the first reference point, the most frequently used apparatus would be a logical second reference point.

Figure 8. Orientation to craft table using clock technique.

This basic method can be transferred to other areas that have the essential properties of a room. A ball field, for example, would suggest using home plate as the starting point. The gate, or another entrance to a playground, might be the major reference point.

The essential elements to area familiarization are: (1) thoroughness, (2) involvement of as many senses and sensory cues as possible, (3) construction of a mental picture of the whole area and the relationship of the parts to the whole and to each other, and (4) use of consistent terms and reference points.

Orientation to a Route

The recreation specialist often has occasion to teach a visually impaired child different routes, which can range from the simple (a straight route from the game room to the bathroom) to the complex (a route involving many turns, e.g., from the monkey bars, to the bench with the coats, to the gate, and to the bus). The basic guidelines for orientation to a route are similar to those for an area (consistent reference systems, use of good landmarks, use of as many senses as possible, etc.).

Additionally there are four essential steps to good orientation to a route.

1. *Patterning the route:* The route should be described first in reference to some sort of pattern or shape. Obviously, the route involving no turns can be described simply, such as "a straight line" or "like the letter 'I". The complex route, however, is more easily understood if it can be related to something concrete that is already known to the child, such as a P-shaped route, a square, an L-shape, or a Z-shape. The recreation specialist would need to be certain the child is familiar with these print letters or geometric shapes before they are used as a reference. If the route is very

complex or if the design does not lend itself to this sort of reference, a very simple line drawing (tactual or visual, whichever is appropriate) can often help the child form a mental map or image of the overall route. Some children do well with simple maps traced with a fingertip on their backs or on the palm of a hand.

2. *Route reversal:* A child should always be taught the reverse or the return route. It cannot be assumed that he can automatically go back the way he came. This complex task, involving the reversal of directions and location of landmarks, is often difficult to do without vision. Everything that was to the right of the body going to a location is on his left side when returning to where he started.

3. *Re-orientation information:* Orientation to a route should include, whenever possible, information the child needs to find his way if he has gone too far or gotten lost. After thorough orientation and practice of a route, simply demonstrate to the child what could happen or what he would encounter if he missed his objective.

4. *Breaking down a complex route:* Routes involving one or more changes in direction (turns) should be broken down or presented in smaller parts or sections. After the initial pattern or design of the route is described to the child, he should be familiarized with each successive part of the route individually until he has mastered it. This process can be thought of as building a chain, each link of which should be thoroughly learned before adding the new one. In this way, the complex task will be made simpler to learn and easier to remember. The child should be told to think of the particular route as having x number of parts or sections. Have him go back over the parts of the route verbally until it is certain he has mastered the entire route. While practicing the route, encourage him to pause and recall each part before he changes direction. In this way, he will avoid hasty or incorrect turns. Be aware that some children may verbalize the directions accurately but have difficulty executing them correctly. Emphasis should be on actual practice of routes soon after orientation is given.

SPECIFIC MOBILITY TECHNIQUES USED BY VISUALLY IMPAIRED CHILDREN

While the recreation specialist is certainly not expected to provide formalized instruction in orientation and mobility to the child with a visual impairment, he can play an invaluable role in the visually impaired child's safe movement in the recreation setting. In order to help the youngster, and others assisting him, to move with optimal safety and efficiency, however, the specialist should be familiar with the following mobility techniques: human (sighted) guide and use of arm and hands for protection.

Human (Sighted) Guide

Accompanied with a verbal cue such as "Take my arm; let's go," the guide stands next to the child and makes physical contact with either the back of the child's hand or his forearm. The child grasps the guide's arm just above the elbow, his fingers on the side closest to the body and his thumb on the outside of the arm. The proper grasp is similar to one used when holding a drinking glass. If the child is too short to reach a position just above the elbow, he can hold the guide's wrist. The grasp should be firm and secure, yet allow for comfort. The guide's arm is relaxed and positioned close to the body. This particular grip allows the child to assume a position slightly (approximately one-half step) behind and to the side of the guide.

A combination of the natural movement of the guide's body, grasped arm and the verbal cues inform the visually impaired child of the direction of movement. The upward or downward motion of the body and arm (preceded by the statement, "We

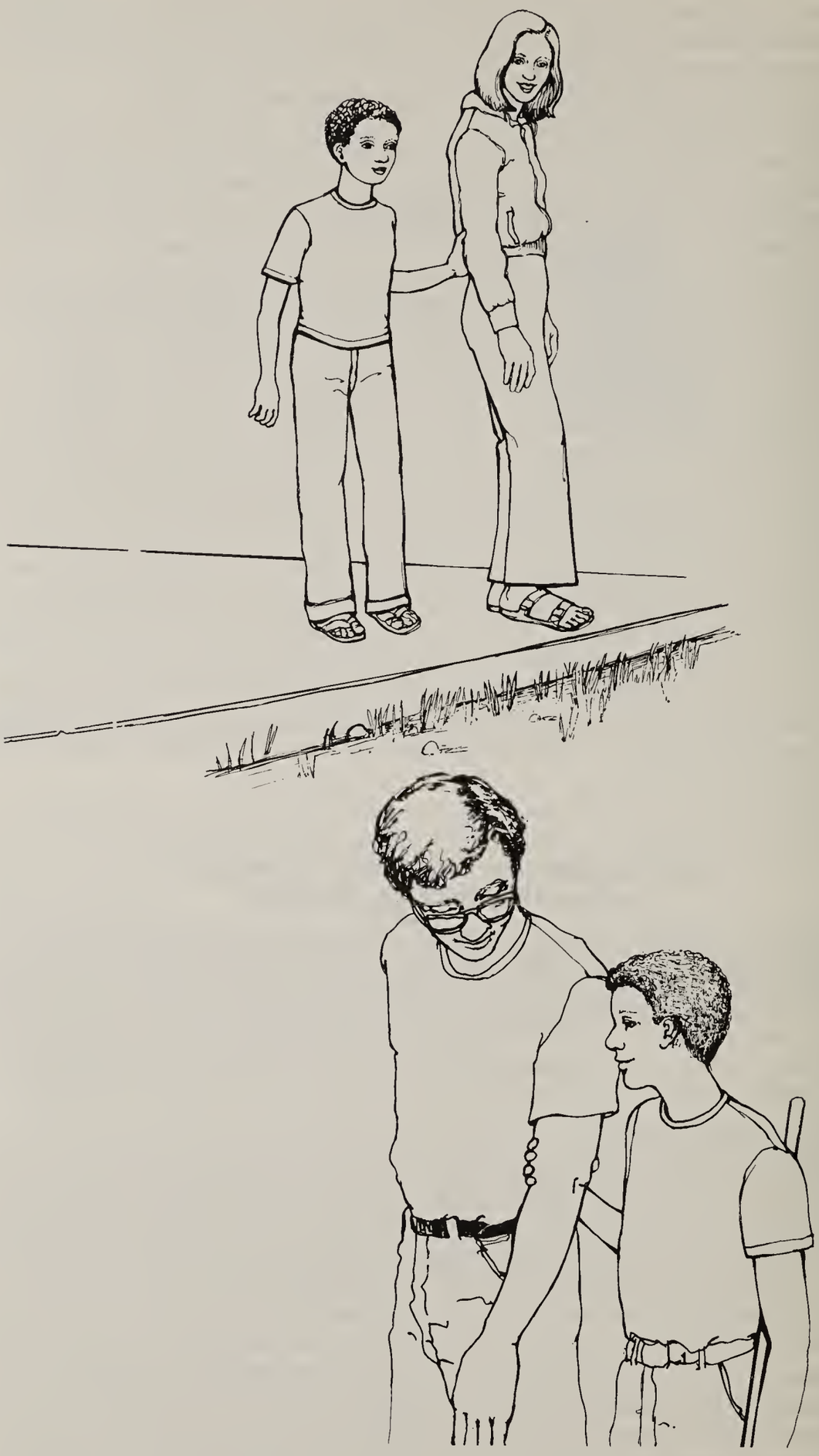
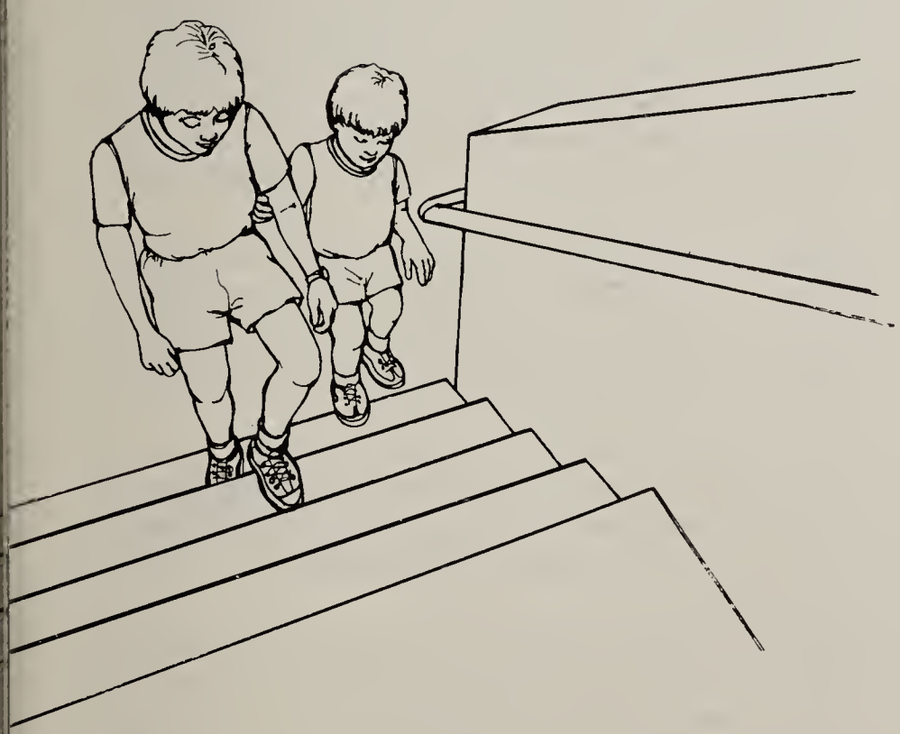


Figure 9. Sighted guide technique.



are approaching stairs going up [or down].") indicate to the child whether the guide is ascending or descending stairs or a curb. The child always remains one step behind when being guided on the stairs. When the end of the flight of stairs has been reached, it is important that the guide pause. This pause will signal the child to move up or down one more step to reach the landing. The child will perceive the arm leveling off when he reaches the landing.

When approaching a passageway that is too narrow for two persons to pass through using the normal sighted guide method, a modification of the position is required. The guide moves the arm that the child is holding behind himself in such a way that the wrist is behind the small of the back. This movement and an appropriate verbal cue signals the child to step directly behind the guide and to straighten his gripping arm (unbend his elbow). Extension of the gripping arm in this manner increases the distance between the guide and the child so that the child avoids tripping on the guide's heels. It will then be possible to pass safely through a narrow area in single-file. When an area that is wide enough to accommodate the width of two people has been reached, the grasped arm is returned to its original position at the side and the basic sighted guide body and arm positions can be resumed.

Doorways may present a situation requiring these modifications: When approaching a door, the guide should pause momentarily and tell the child whether the door will open toward or away from him and whether it will open toward his left or right side. This will allow the youngster to adjust his body accordingly and use his free side to assist in holding the door open while both he and the guide pass through the opening.

When guiding the visually impaired child to a seat, the guide describes the chair (its type: sofa, bench, and its characteristics: no back, arms) and states whether he is approaching the front or rear of the chair. If approaching the front of the chair, he positions the child so that his legs touch the front of the chair while he is facing it. The child's free hand is placed on the back of the chair. The child releases his hand from the arm of the guide and sweeps it across the seat to make sure that the seat is clear. He then turns and seats himself.

If the chair is approached from the rear, the child's free hand is placed on the back of the chair. A sweep of the back of the chair will indicate to him which way the chair is facing. The same procedure should be followed when instructing the child to clear the seat, to check for the possibility of chair arms, and to move around the side to the chair to sit down.

It is important that the youngster who is totally blind maintain a firm but comfortable grasp at all times. The youngster who has some vision may be able to maintain a looser, less constant grasp or, in some cases, may be able to follow the guide's movements visually without physical contact. Ask the low vision child whether he prefers to hold the guide's arm or to watch and follow.

Because some visually impaired children may have extremely variable vision, a child may be able to follow a guide's movements on one day and in one type of lighting but may require physical contact on another day or under different lighting conditions. The child should be strongly encouraged to inform the guide on his own when he needs to make physical contact.

If the child can follow the guide's movements visually, it is important to note the distance and position from which he can see most clearly while maintaining the goals of safety, efficiency, and gracefulness in movement. The child with vision who needs physical contact with his guide should be encouraged to use his vision in addition to the physical guidance so that he can anticipate movements and/or appreciate his immediate surroundings.

Use of Arm and Hands for Protection

When the visually impaired child is in a familiar indoor setting, he can often be encouraged to move independently, using his arm and hands in a prescribed manner to protect his body. The three arm-and-hands methods commonly used by visually impaired children and adults are hand trailing, upper body protective technique, and lower body protective technique.

Hand Trailing

Hand trailing is used to follow a wall or other solid surface to maintain a straight line of travel. This method can also be used to locate specific objects along the straight line (e.g., the water fountain on the east wall, the pottery table along the window wall, the lockers by the door) and to maintain orientation to the immediate surroundings.

When using this technique, the child stands approximately six inches from the trailing surface, for example, a wall. The arm closest to the wall is extended forward about one foot from hip level so that the hand will touch the trailing surface. The palm, back, or side of the child's hand can be used to follow the surface. His fingertips are curled slightly to avoid injury. Proper arm and hand position are necessary to provide optimum protection. The extended arm and hand will detect objects along the trailing surface, warning the child of potential danger.

Hand trailing is frequently used in conjunction with one or the other arm-and-hands protective methods to provide additional protection in front of the body at chest or waist level. It must be emphasized to the child that his arm and hand must be extended and positioned *ahead* of him in order for him to have warning of or in-

Figure 10. Hand trailing along a wall to maintain a straight line of travel.

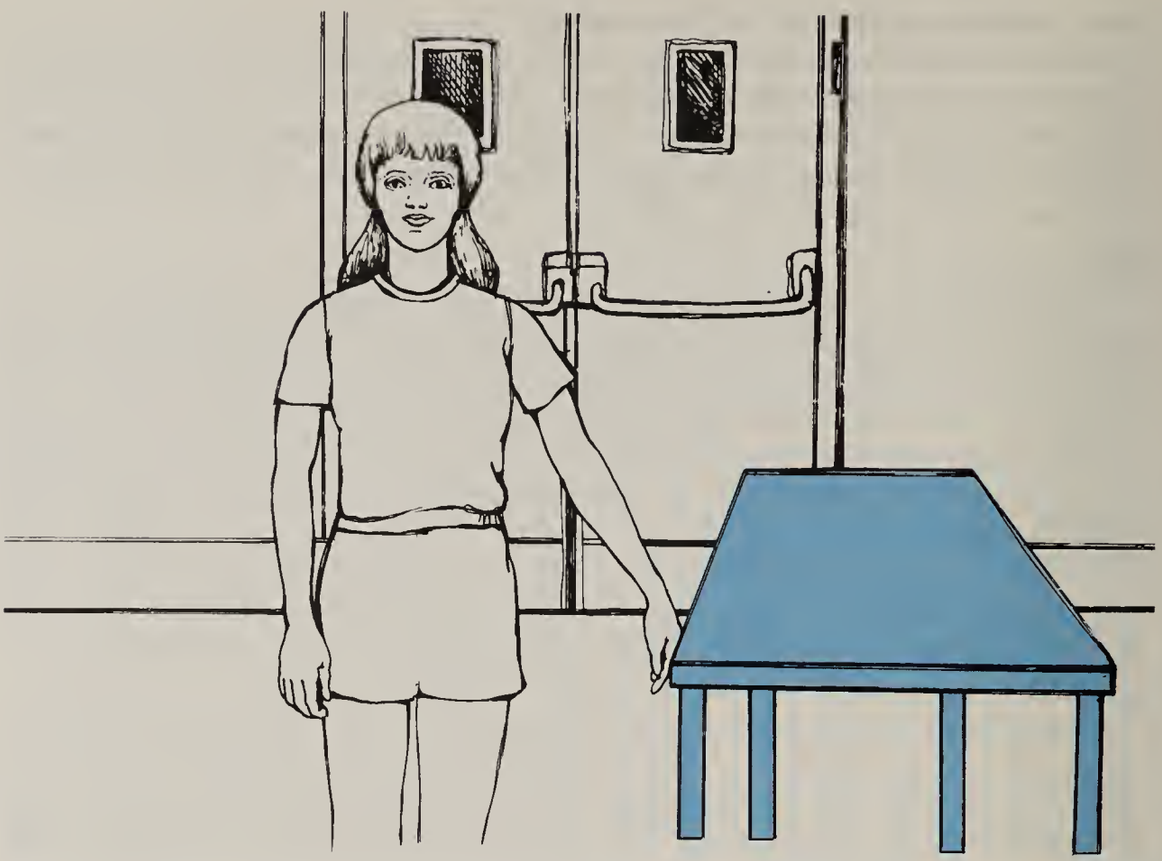


Figure 11. Hand trailing to locate furniture and other large objects in a space.

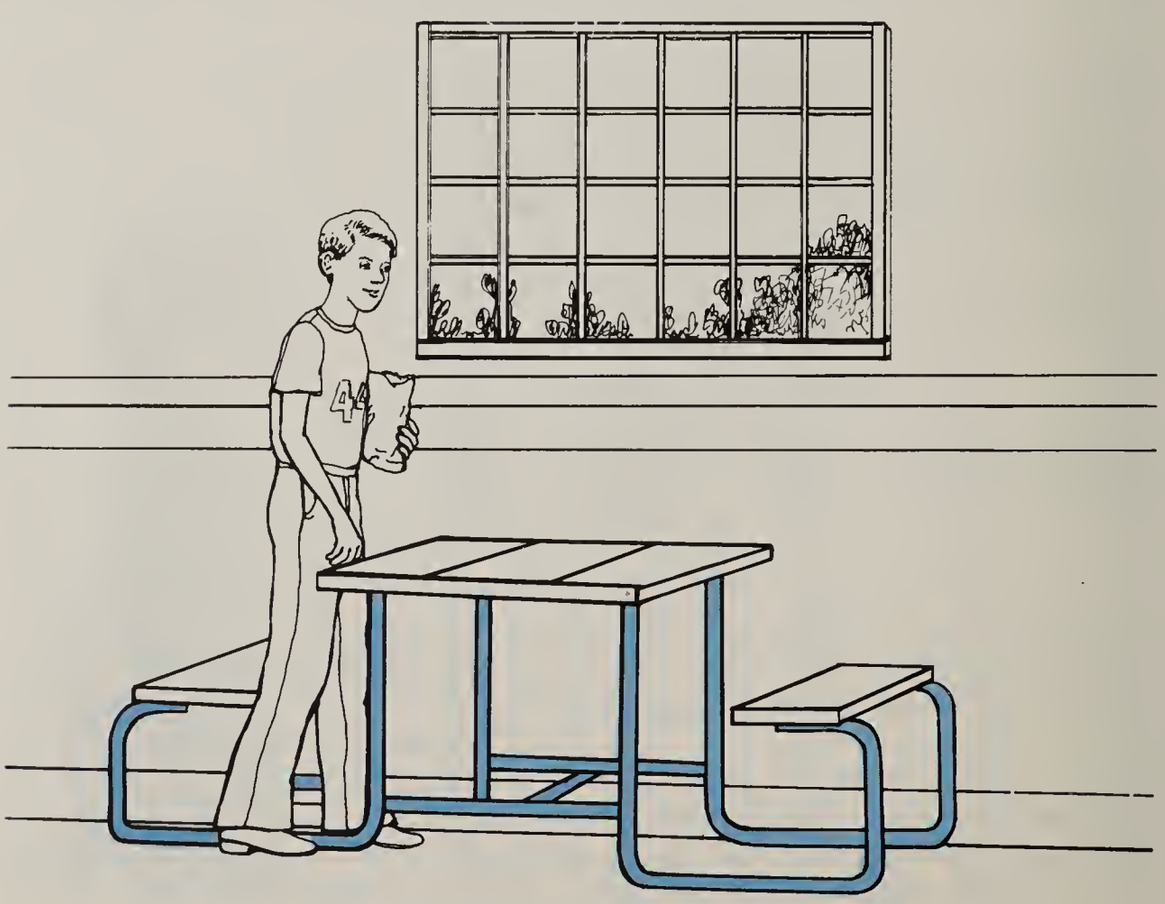


Figure 12. Trailing in a tight space.

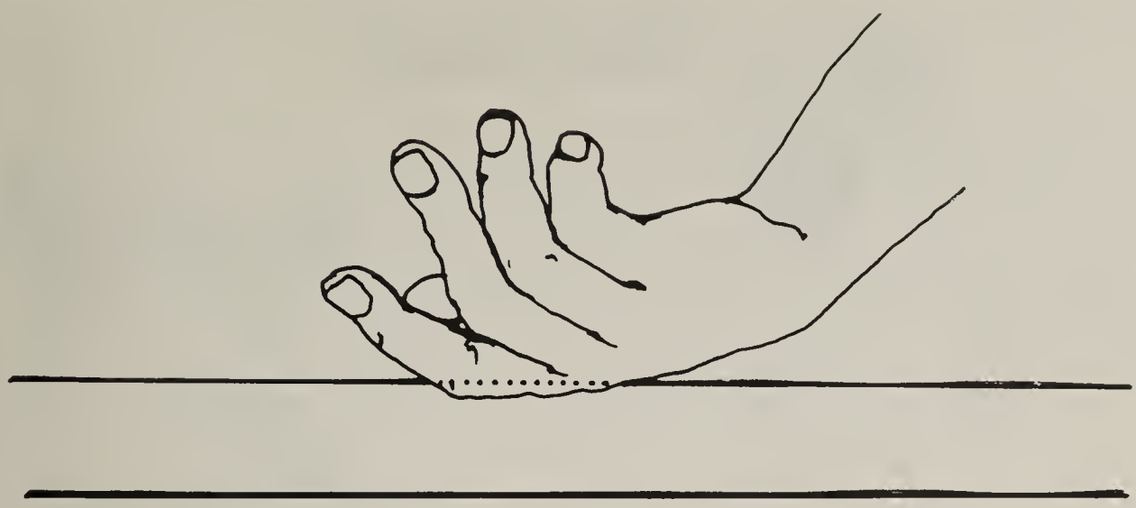


Figure 13. Close up hand trailing.

formation about the objects in his path before he reaches them. This is true whether he is trailing a wall, a piece of furniture, or a railing.

Upper Body Protective Technique

The upper body protective technique is used to protect the upper torso, shoulder, neck, and face area. The child may use either one of his arms for this method, depending on both comfort and the side of the body on which anticipated objects are located. Proper use of this technique means that the palm of the child's hand will be used to locate the object, thereby protecting the rest of his body from injury.

When the visually impaired youngster uses this technique, he must extend the right or left arm straight ahead at shoulder level, making it horizontal and parallel to the floor's surface. He then bends his arm at the elbow so that the forearm extends across the width of his body, protecting the opposite shoulder. His forearm extends forward so that an obtuse angle of slightly more than 90° is formed at the elbow. The palm of his hand faces away from his body, while his fingers remain loose and slightly flexed. The hand is always extended farther away from the body than the elbow so that when contact is made, the elbow is not struck first.

When the arm is held at shoulder level in the standard upper body protective technique, the upper chest and shoulder areas are most adequately protected. In some cases, when the object anticipated is slightly above or below shoulder level (e.g., the face or chest area), the arm may be raised or lowered to provide the necessary protection. In these cases, the hand should still be extended slightly further than the elbow. The child with vision should use his sight to aid him in anticipating obstacles and then to adjust his arm and body positions accordingly. He should be careful to hold his arm and hand in a position that will ensure the protection offered by the technique but, at the same time, will not obstruct his vision.

When the upper body protective technique is used in conjunction with trailing, the child should use the arm that is farthest from the trailing surface.

Lower Body Protective Technique

The lower body protective technique is used to protect the waist and groin area, thereby preventing injury from such objects as tables and chairs. The child extends his right or left arm downward in a diagonal position toward the midline of his body. His hand is held ahead of him about 12 inches from the front of his body; the fingers

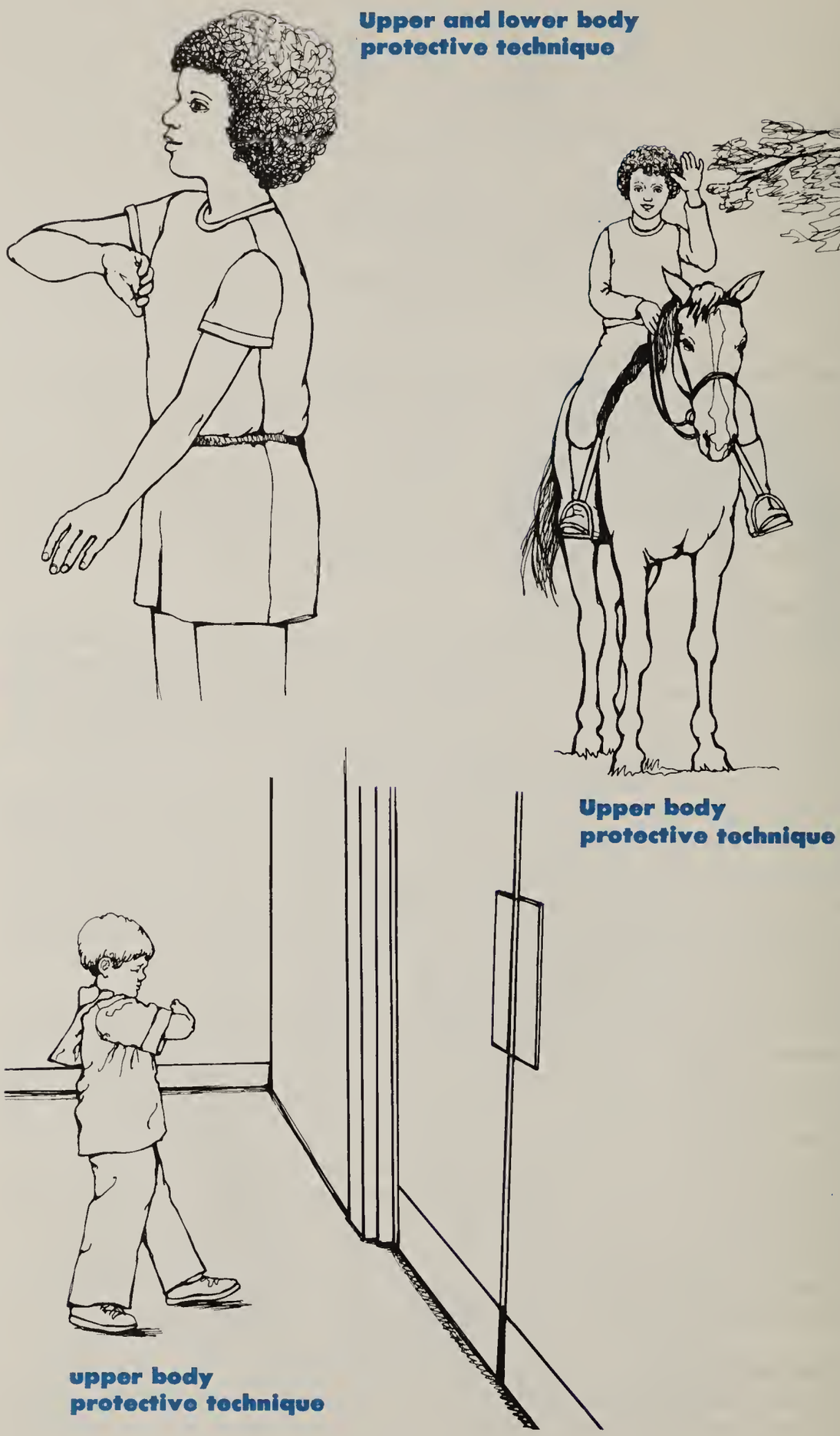


Figure 14. Self protective techniques.

point toward the floor and the palm of the hand faces his body. If the child's arm drifts too far away from or too close to his body, the protection offered by this technique will be severely reduced.

The child with vision may also need to use the lower body protective technique in some situations. While employing this technique, he should be encouraged to scan his surroundings visually for objects that may be in his path. The combined use of vision and the arm-and-hands technique can provide the child with protection and with a means for checking the location of objects that he may be able to see only vaguely.

When this method is combined with hand trailing, the hand farthest from the trailing surface is used. When the child is traveling in open space, the upper and lower body protective methods can be especially useful and reassuring.

Use of the Long Cane

The recreation specialist may find that some visually impaired youngsters make use of the long cane for their travel needs. The visually impaired child who uses a long cane should either be receiving or have completed formal orientation and mobility instruction and should know the correct cane techniques. The recreation specialist will not be expected to offer instruction or assistance in the proper use of these methods. He may find it helpful, however, to become familiar with some of the basics of cane usage.

The long cane, or prescription cane, is used in a systematic way. The basic technique of cane travel involves the rhythmic movement of the cane in an arc in front of the body, assuring a safe space for the youngster's next footstep. The visually impaired child grasps the grip of the cane as in a handshake, while extending and pointing his index finger toward the cane tip. The cane becomes, in essence, an extension of his pointed index finger. He holds the cane in front of the midline of his body, elbow in by the side close enough to hold a book securely.

As the youngster walks, he pivots his wrist to flick the cane from side to side in alternate time with his footsteps. This cane movement is clearing an area of safety for the next step. As the cane touches the ground at a point corresponding to two inches to the right of the shoulder, the left foot moves into the area just cleared by the cane. As the child moves the cane back to the left side in front of his body and touches the tip on the ground at the spot corresponding to two inches to the left of his shoulder, the right foot moves ahead.

When used in this manner, the cane can provide protection for the area about three feet ahead and a few inches to the side of the visually impaired traveler. The cane cannot, however, locate an object above the waist area that does not have a base that touches the ground directly below it, such as a large overhanging branch or a protruding window air conditioner.

When traveling alone out of doors, the totally blind child will most often need to make use of his cane for protection. The child with vision may require cane protection in some outdoor situations, such as traveling in unfamiliar areas or under lighting conditions unfavorable to his type of visual impairment, but may not need the cane at other times.

When indoors, the child with or without vision may prefer to use his cane while moving through a building. This is especially true if the environment is unfamiliar and if many obstacles, such as wastebaskets, low tables, and empty boxes, are on the floor in his path of travel. If the child is familiar with his surroundings and the floors are relatively free of obstacles, he may prefer to store his cane in his locker while in the building. In this case, the child can rely on the use of a sighted guide, his arm and hands, and/or his vision for safe, efficient, and graceful movement indoors.

If the recreation specialist has a specific question about a child's cane skills, the extent to which the cane should be used in a particular environment, or the child's other mobility skills, he should contact the orientation and mobility instructor. Many of the orientation and mobility skills mentioned throughout this chapter will have been learned by the child, taught by other professionals, prior to his entering the recreation setting. Reinforcement and encouragement of these techniques may be all that is appropriate in terms of the recreation specialist's role.

CONSIDERATIONS FOR CHILDREN WITH ADDITIONAL IMPAIRMENTS

Following are a few comments and suggestions relating to orientation and mobility for the visually impaired child who has other impairments.

The Deaf-Blind Child

Essentially, a deaf-blind child (a child with severe impairments of hearing and vision) who has no additional impairments has the potential for independent movement. The recreation specialist needs to remember that auditory cues will not warn this child of dangers in the environment. Shouts of "stop" or "watch out" and the sound of automobiles, pedestrians, or a bat hitting a ball, for example, are lost warnings. Visual cues, such as hand signals across a room, also cannot usually be used. Often a deaf-blind child will exhibit some balance problems. Discussion with the parents and special teacher can provide advice on any physical limitations (such as not letting the child play on steep, descending slopes or balance beams).

These factors must be considered whenever activities are planned for the deaf-blind child. This does not mean that the child cannot participate fully in any activities. Rather, it suggests that the recreation specialist must exercise extra supervision and modification of activities when necessary.

Communication can be a problem with a deaf child who has visual limitations. Some children will have developed a skill in the use of various methods of communication, such as lip reading and note-writing (for the child with enough vision), sign language, finger spelling, and sometimes speech.

In conjunction with the child's parents or communication teacher, the specialist in recreation should determine the most appropriate method of communicating with the child. If the child has a method to communicate his needs in a way that can be understood and is able to receive information, it should be possible to orient him to the recreation setting and involve him in activites. Usually this would involve some physical demonstration and body manipulation to reinforce the information.

The Mentally Retarded Visually Impaired Child

Essentially, the child who is mentally retarded requires more simplicity and repetition for orientation to his surroundings than the child of normal intelligence. Often the mentally retarded child can learn routes, but by rote and repetition. The orientation should be basic and free of extraneous detail. The pace is often slower, and the routes should be practiced frequently. Information about the environment should be concrete. Maps are often not useful with this child. The concept of breaking down routes into their simplest and smallest components is particularly important. The recreation specialist will often encounter difficulty with the reversal of a route for this child and may need to spend as much time orienting him to the return route as to the original route. In general, the mentally retarded visually impaired child requires directions given in a simple, concrete manner, with additional time to practice what he must learn.

The Physically/Orthopedically Impaired Child

In general, the primary need of the visually impaired child who has an additional physical impairment is more time to move from place to place. This is particularly true in negotiating stairs or any change in surface level.

The visually impaired youngster who uses braces, a walker, orthopedic cane, or crutches requires professional training in their use prior to any involvement in the recreation activity. Time must be provided for this child to use the device in the manner prescribed, along with the time needed for him to process whatever sensory information he is receiving.

Special care should be taken to ensure that the recreation setting is free of any unnecessary slopes or changes in terrain that could cause the child with an orthopedic device to lose his balance. If this is not possible, the child should be taught to use the smoothest possible surface for his travels around the setting (even if this lengthens the route somewhat). The child who is totally blind and using braces or an orthopedic cane may require a railing (or improvised rope-guide) to help in maintaining his balance while guiding himself along a frequently used route.

FOSTERING POSITIVE ATTITUDES ABOUT ORIENTATION AND MOBILITY INDEPENDENCE

The Child

Some visually impaired children who are fearful, timid, or inexperienced in independent movement may need a lot of encouragement and reassurance to move freely in the recreation environment. In these instances, the child needs to be shown how freedom of self-directed and purposeful movement can enhance the enjoyment of the play experience. She needs to be shown that independent movement can be fun in itself! While trying to motivate the child toward independence, the recreation specialist must do so gradually and allow the child to learn at her own pace. An effort must be made to foster understanding on the part of the child's peers by demonstrating in words and action that enough time must be allowed for this youngster to absorb directions, become oriented, and move safely.

The Parent

The importance of the parents' role in this aspect of the child's experience cannot be emphasized enough. If the child is to be able to move freely in settings away from home, she needs encouragement from her family to do so in her home environment as well. Parents should be kept informed of the child's progress, particularly since they may have fears and concerns about the child's safety in recreation settings.

Often, it is helpful to demonstrate to the parents the basic methods being used for orienting and guiding the child. If the parents are not aware of the basic protective techniques, they may profit from demonstration of these as well. In this way it may be possible to reassure the parents about the attention that will be given to the child's safety. In addition, it may encourage consistent follow-through of learning in the home. Finally, it may be necessary to reassure the parents that the role of the recreation specialist is not that of an orientation and mobility specialist and that there are professional limits that persons providing recreation programs would have in this area.

The parents should be asked which leisure activities the child enjoys at home, both independently and in a family grouping. It will also be useful to know which recreational activities the family enjoys. The information may be helpful in the plan-

ning of activities with the child. For example, the parents may indicate that the family enjoys bowling and may welcome some information about how their child can become involved in such an activity.

If there are several visually impaired children in the recreation setting, it may be very helpful to demonstrate the techniques and discuss information and concerns with a group of parents. In this way they can be supportive of one another, while the recreation specialist offers them reassurance and answers questions concerning their children's safety and movement.

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CHAPTER 4

Recreation Programming for Visually Impaired Children

by Marcia J. Carter and

Jerry D. Kelley

Some writers use the terms "recreation" and "leisure" interchangeably; others attempt to draw clear distinctions. Some focus on recreation as an activity engaged in during leisure, and still others stress an abstract philosophical view that explains recreation as some kind of existential response or metaphysical experience.

In his paper "Exploring Inner Space," David Gray offers a pragmatic definition of recreation that appears to be gaining acceptance among many professionals in the field. He says:

> Recreation is an emotional condition within an individual human that flows from a feeling of well-being and self-satisfaction. It is characterized by feelings of mastery, achievement, exhilaration, acceptance, success, personal worth, and pleasure. It reinforces a positive self-image. Recreation is a response to aesthetic experience, achievement of personal goals, or positive feedback from others. It is independent of activity, leisure, or social acceptance. (Gray, 1972)

Further, he states that recreation should be viewed as a subjective individual response to an environmental imperative:

> There is no such thing as a universal man and there is no such thing as a universal park and there is no such thing as universal recreation. There is an individual emotional response, by individual persons in an individual park (or recreation environment). (Gray, 1972)

Translating this concept into a programming philosophy means that the recreation specialist must know intimately the culture, needs, wishes, social patterns, lifestyle, and level of ability (or disability) of the individual child as well as the group in which the child is expected to function.

This chapter will explore recreation and its importance as a community service. More specifically, it will look at some of the techniques and approaches to recreation programming for the visually impaired child.

RECREATION SERVICES FOR DISABLED POPULATIONS

If recreation is regarded as a "subjective response to an environmental imperative," what, then, are recreation or leisure services? More specifically, what do we mean when we use the phrase "recreation services for disabled populations?" Recreation services reflect or mirror society; they reflect the desire and commitment of a community to provide a formalized structure to enable all persons to have a positive recreative experience. If society holds that all citizens are entitled to equal access to recreation services and environments, then recreation delivery systems will be established and supported in an effort to carry out this mandate. If, on the other hand, society professes, because of prejudice or financial considerations, that some individuals or groups are more equal or deserving than others, then the delivery systems will provide programs accordingly.

In recent history, the delivery of recreation services in the United States has reflected the egalitarian philosophy of American culture that all persons should be guaranteed an equal opportunity for participation. There has been a genuine effort to offer services and distribute resources with minimal segregation or favoritism due to a person's social class or subcultural affiliation. This is not to say that there have not been notable exceptions. One of these exceptions has been the reluctance of public and private community recreation systems to respond adequately to the needs of ill and disabled populations.

Since the founding of the park and recreation movement early in the history of this nation, recreation delivery systems have designed programs primarily for those who fit the community "norm," thus systematically excluding certain disabled populations from the mainstream of recreational opportunity. Before concluding, however, that recreation agencies are any more guilty than other institutional systems, one should not forget that until recent years disabled persons have been excluded from the mainstream of community participation by nearly all social institutions. Witness the large state hospital system designed to warehouse mentally ill and emotionally disturbed individuals, segregating them into less populated rural areas where they would be least likely to disrupt the "normal" life of the community. Though service systems for individuals with visual impairments were better financed and have a history of being more humanitarian and benevolent, nevertheless they followed the trend by building a network of special schools, which historically contributed to the isolation of many visually impaired children from their families and peers.

The failure of community recreation to respond to the needs of excluded populations, plus the growing demand for recreation services for institutionalized disabled and impaired persons, gave rise in the late 1940's to the formation of a specialized field of service known as therapeutic recreation. In the early days, therapeutic recreation was concerned primarily with rehabilitation of individuals who were institutionalized, a purpose evident in the name by which the new specialization was originally known: "hospital recreation." As the years passed, the definition of therapeutic recreation was broadened to encompass all recreation services for persons with disabilities. A "continuum concept" of service delivery provided the rationale for this larger role.

This expanded concept of therapeutic recreation that included community services has had two major consequences for disabled adults and children, consequences that are not necessarily regarded as positive. First, because most disabled and impaired individuals are now living in a non-institutional setting or are in the process of being mainstreamed back into community life, they do not need, nor do

they have any desire to have, "therapy." Furthermore, they have no wish to carry the stigma of being recipients of "therapeutic" recreation services. Therefore, the broadened service delivery perspective that has maintained a "treatment" image runs counter to the desires of many disabled adults and young people to seek a "normal" range of experiences like their nondisabled peers.

Secondly, the therapeutic recreation field claims to be the primary professional group delegated the exclusive responsibility to serve disabled populations. The longer this image is promoted, the more difficult it becomes to convince the community recreation specialist that he must assume responsibility to provide recreation services to *all* persons in his community regardless of the nature and extent of their disabilities.

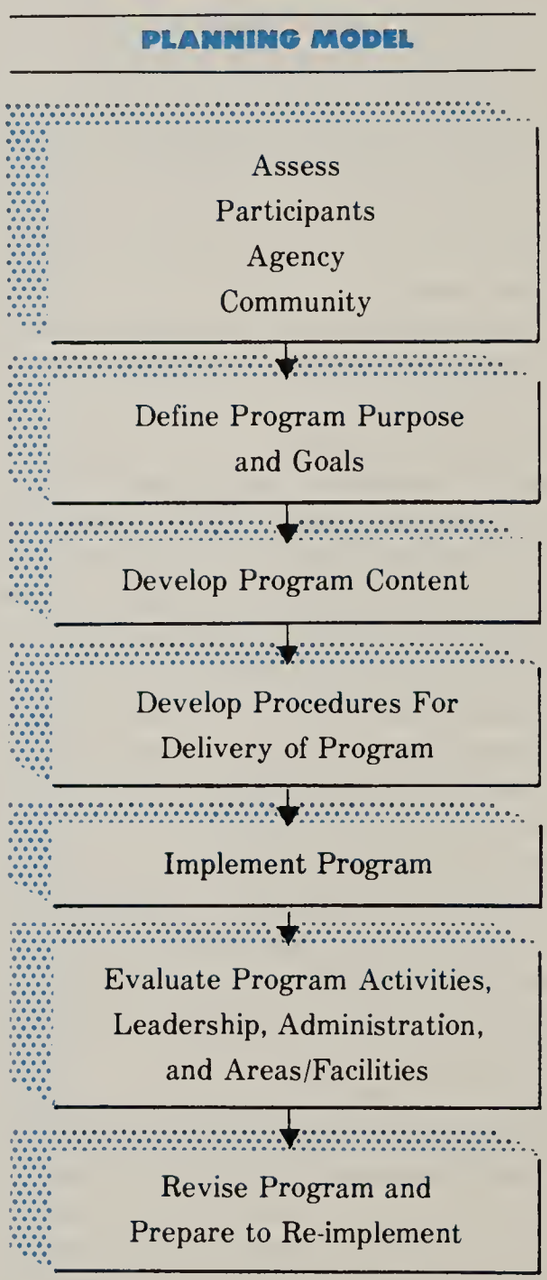
An important point to be emphasized here is that recreation for disabled individuals and, more specifically, recreation for adults and children with visual impairments, does not necessarily need to be the same as therapeutic recreation, and the differences between the two have significance for programming philosophy and approach. The primary purpose of recreation is to provide programs and services that make possible individualized recreative experiences—experiences characterized by feelings of mastery, achievement, exhilaration, acceptance, success, personal worth, and pleasure. The primary purpose of therapeutic recreation is to assist the individual in achieving optimal healthy functioning and independence through interventions designed to bring about a desired change in behavior. To the community recreation specialist, the recreative experience can be viewed as an "end unto itself," requiring no other justification. To the recreation therapist, the recreation activity is a means by which remediation, restoration, or rehabilitation objectives can be achieved.

This book is concerned with the provision of recreation services for visually impaired children who may be considered mainstreamed to the extent that they no longer require residential care or structured interventions designed to achieve rehabilitation goals or outcomes. The purpose of the program would be, in this case, to facilitate the "recreative experience" and thus to bring an element of pleasure and fun to the visually impaired child as she strives to achieve an optimal level of social competence and social functioning. This discussion is not intended for those who are more concerned with therapeutic outcomes. In those circumstances when the recreation specialist would encounter a situation in which the visually impaired child (or parent of the child) exhibits severe limitations or maladaptive behaviors, the specialist is urged to seek assistance from those who are specifically trained to deal with pathological conditions or serious rehabilitative problems.

A discussion of recreation programming for visually impaired children may be approached from at least two perspectives. The first perspective may be that of the typical recreation specialist who encounters the visually impaired child, without forewarning or prior preparation, while he is in the process of implementing his regular programming responsibilities. While such an occurrence is not altogether common, it can happen. The second perspective is that of the recreation specialist who has been assigned the responsibility of providing recreation programs and opportunities for "special populations" (those persons who have special needs because of a disability).

The primary focus of this chapter is to look at recreation programming from the second perspective; however, it is assumed that a recreation specialist in either situation would utilize a basic programming process that would be appropriate to both circumstances. Although the specialist in the first perspective may not always have the time, resources, or sanction to undertake the more comprehensive approach, he should employ the process to the greatest extent possible.

The development and implementation of a recreation program is based on a systematic sequence of steps or phases which, when completed, may appear as a problem-solving or decision-making process. While using this systematic procedure, the recreation specialist takes into account all of the elements that influence the operation of the program as he designs and selects activities and appropriate leadership techniques that will enable participants to achieve predetermined objectives. In the model below, each box represents a phase of planning and implementation. Arrows from one phase to the next depict the direction of the process. As the specialist completes the tasks for one phase, the next developmental phase begins to take shape. Thus, there is an interdependency or relationship among the activities undertaken at each step. This permits the programmer to consider all of the elements influencing the decision-making process on an ongoing basis, thus encouraging the development of a flexible program design.



Phase I. Analysis of Participants, Agency, Community

As an initial step in program development, the recreation specialist must determine the needs and interests of the participants and the resources that are required

or are available for the program. To lay a foundation for a positive experience for children with visual impairments, the specialist must attempt to identify the social and cultural expectations of the individual child as well as the physical accessibility of the setting.

An informal survey of available community agencies, their staff, facilities, and funding will help to identify future program limits and possibilities, including the potential for interagency cooperation. A service directory (published in most communities by a community welfare council), a telephone directory, and information from the Chamber of Commerce, Better Business Bureau, tourist information center, and local and/or state government offices are useful resources for identifying the status of services and programs for all populations, as well as transportation and communication networks, and sources of volunteers. By contacting the United Way and other community service groups, the recreation specialist can also determine how many recreation programs are available for the visually impaired child, as well as location of the programs, cost, accessibility, and hours of operation.

After a careful assessment of the community to determine potential recreation opportunities and a study of the particular agency in which the recreation specialist is employed or with which he will be working, the specialist must assess the actual and potential functioning of the visually impaired participants. The specialist must know the functioning levels of all the children in order to be able to design appropriate activities that will lead to successful experiences. Through observation, discussion with parents, special teachers, and low-vision specialists, the recreation specialist determines the child's level of recreation skill, and orientation and mobility functioning. When there are only a few visually impaired children participating in selected programs, the extent of preparation needed by both the visually impaired and the non-impaired children must be determined in advance to enable them to make a comfortable adjustment to each other and to the setting. During this phase, the specialist determines the skill levels needed to accommodate this integration.

The process of establishing the ability levels and performance limitations of participants, known as assessing functioning levels, may be undertaken in several ways. Reports and records kept by schools, if available, will contain results of motor and academic evaluations. A visit with teachers, parents, and low-vision experts may allow the recreation specialist to acquire information about any activity limitations that the participant might have. Also, the recreation specialist may observe participation in other recreational activities in informal settings to gain additional understanding of abilities and limitations. Usually assessments are completed in three areas of behavior: motor (physical), cognitive (knowledge), and affective (emotional). The recreation specialist may elect to develop his own informal assessment procedures. It is important to remember that this assessment process should be carried out in an unobtrusive manner so as not to give the child a feeling of being tested or evaluated (as might happen in a rehabilitation program). All assessment procedures used by the recreation specialist should involve an element of fun in keeping with the intent of recreation philosophy.

Phase 2. Definition of Purpose, Goals, and Objectives

After collecting information and analyzing the resources, needs, and interests of the visually impaired child, the agency, and the community, the recreation specialist should develop a broad statement of purpose that outlines the overall intent or direction of the program. It should include desired program outcomes and be able to serve as the guide for continuing program development. Based on this general statement, the specialist would formulate more specific goal statements to clarify

and define in greater depth the method for realizing the purpose and determining the types of services or activities to be included. From the developed goal statement, the recreation specialist should construct specific objectives that describe in detail the recreation behavior to be performed, the conditions under which the behavioral outcomes are sought, and the criteria that would be used to indicate successful outcomes. As the participants attain the outcomes specified by the criteria in each objective statement, the written objectives will permit the specialist to determine if the designed program has achieved its purpose.

A purpose statement appropriate for a recreation program might read: *To provide for all participants a structured recreation program designed to develop knowledge and skills in a variety of recreation activities that promote physical, mental, emotional, and social growth and development of each individual.*

From the purpose statement, the specialist would develop goal statements that focus on specific or major components of a recreation program. Several goal statements derived from the illustrative purpose statement might include:

1. To provide an opportunity to participate in cultural, social, service, nature, camping, arts and crafts, lifetime pursuits, and sports activities.
2. To provide an opportunity to experience recreation activities appropriate to the skill and ability level of each individual child.
3. To provide an opportunity for each child to participate in activities which enable her to practice previously acquired skills, acquire new skills, or maintain specific skills while enhancing her own level of personal growth and development.

Following the assessment phase, specific objectives are formulated. Objectives serve as the guide to the selection of specific program activities and leadership techniques. Also, the objectives serve as the evaluative criteria for program operation. Objectives are usually written for the three areas of behavior previously assessed, motor, cognitive, and affective. Using as an example the number one goal statement, at least one objective is prepared for each area of behavior.

The format of each of the objectives is similar. The first segment of the sentence is the condition or circumstance under which the behavior is to be performed. An action verb follows the condition and identifies an observable behavior to be performed by the participant. And, lastly, the evaluation criteria will specify how the behavioral outcome is to be measured.

Phase 3. Development of Program Content

The objectives are the starting point for selecting specific recreation activities, leadership techniques, and the organizational structure for implementation of the recreation services. They also help to determine how long and for what skill level activities will be offered. Activities should contribute to achievement of the objective and, ultimately, the program purpose, as well as satisfying participant needs and interests as determined by the initial appraisal. The process used to help determine whether a specific activity satisfies the objectives while corresponding to the functional level of participants is activity analysis.

In activity analysis, the specialist determines the types of physical actions, knowledge, skills, emotional responses, and social interactions needed to participate successfully in a given activity. By knowing the components of an activity, the recreation specialist is able to establish if, when, and what modifications and adaptations are needed to enable both visually impaired and non-impaired children to participate. Also, the specialist, along with the visually impaired child, is able to select a variety of alternative activities to permit achievement of the objectives.

An analysis of the objectives helps determine the structure of the activity. The

possibilities might include a club, drop-in center, instructional class, contest, special event, mass activity, or special interest group. The philosophy of the particular agency also influences the structure for recreation programs. For example, if the purpose of the recreation facility is to provide opportunities for children to acquire new recreation skills, then it usually schedules individualized lessons and/or group instruction. If a "YMCA" is charged with offering the opportunity for youth to experience interpersonal interaction and group participation in a special environment, then it may sponsor a sports league, special events, interest groups, or some other type of mass "Y"-oriented activities. Following analysis of the written objectives, the recreation specialist may choose to offer classes to teach motor skills, table and card games, and art; or, depending on the agency philosophy and the functional abilities of the particpants, he may attempt to facilitate the acquisition of the required skills in club activities, game-room activities, or through special interest groups.

The recreation specialist also uses the objectives as a guide to establish the number and length of the sessions and to prepare the equipment, facilities, and staff for each session or each activity period. The more complicated the skills required to participate in an activity, as determined by the activity analysis process, the longer the time allowed for learning the skills. A review of the information obtained from participant assessment will also indicate to the specialist the needed modifications to enable both non-impaired and visually impaired participants to master the activity skills. Thus, with the assessment information and his own efforts to analyze the activity, the recreation specialist determines how to offer recreative experiences in different types of program structures. It is highly desirable to involve the child in all aspects of this process where possible.

Phase 4. Development of Program Procedures

After the recreation specialist selects content or activities, he must determine which leadership techniques are appropriate to the activity's structure and will enable the realization of the objectives. For example, in an open activity room or drop-in center, a facilitative role is called for, while in a setting such as a structured class, assuming the role of teacher or leader may be more helpful. Thus, the roles and functions of the activity specialist are determined by the structure and setting in which the programs are implemented. The more formal the structure (e.g., a class), the more control that may be required of the specialist. In a less formal program (e.g., a drop-in center) less direct control would be required. The recreation specialist may only be expected to offer suggestions, observe participants, and assist when necessary. An assessment of both overall group functioning and individual skills (of both visually impaired and non-impaired children) will determine suitable leadership roles.

Regardless of the outcome of participant assessments, there are several leadership procedures that facilitate participation of visually impaired children, particularly in instructional sessions or activities that call for a leader.

1. Allow the children to orient themselves to the classroom or instructional area as discussed earlier in this book. Guide them around and through the area, while identifying permanent fixtures and obstructions, and the location of supplies and equipment. The specialist should ask the child to tell him when he feels comfortable with the environment. Locate temporary or moving objects and show the child where they might be under other circumstances. Allow the child to become oriented to all conditions (e.g., natural and artificial light) and circumstances under which the activity will occur (e.g., with non-impaired peers, on a one-to-one basis, or alone).

2. In describing an activity, use a demonstration approach, touching and guiding

the child's body through the appropriate motor behavior. Speak in a clear, concise fashion. Instead of saying, "Do it this way," describe the specific body parts used to complete a task while allowing the child, when necessary, to feel the actions of the person demonstrating the task. Give movement directions by established reference points in the environment and consistently refer to them: "The kiln is to the left of the arts and crafts door." "The doorway is at two o'clock, your chair is at 12 o'clock, and the supply cabinet is at three o'clock."

3. Go from the whole, to the parts, and back to the whole in teaching a new skill. For example, sing an entire song, going through the hand motions and letting the visually impaired child feel your actions. Next break the song and actions down into lines and practice each line separately. Finally, have everyone sing the entire song and do the actions.

In a class that will produce a product—a picture, nature collage, or Christmas decoration—have a completed model for class members to examine at the beginning. If the project has several steps, prepare an example for each step. If a skill is to be perfected, break down the activity and begin with the first requirement level. For example, in leatherwork, practice casing the leather and using each tool before attempting to engrave. If a physical movement, such as dance, requires the use of several body parts, allow the participant to move hands and arms, then feet and legs, and lastly, combine the movement of all limbs.

4. Develop an effective communication system. Establish cues and signals to start, stop, and change actions, or provide a warning when time is running out. It may be necessary to describe verbally the actions of an entire experience such as a dramatic play or outdoor cooking experience. Use descriptions involving comparisons based on the sense of touch as a reference system; for example, "Plaster of paris hardens like cement;" "the paste is sticky like gum;" "the campfire is not like the stove at home." Maintain a well-organized, ordered, and controlled environment appropriate for achieving optimal programmatic outcomes and necessary safety.

5. Teach the new skills during the beginning of the session. Because children with little or no vision must use more of their sensory resources to acquire a skill, it is often necessary for them to expend more energy and effort to grasp a new experience. This is why it is best to introduce new skills while participants are alert and fresh.

Use a multi-sensory approach with examples and repetition, and varied types of practice. Use models, samples, and concrete references. Combine feeling, hearing, and talking while guiding the visually impaired child through a new task. For example, require the children to listen as you describe leatherworking, while they touch the leather. Direct their hands to show them how to hammer with a tool, describing the wrist action and tool placement on the leather.

If the activity involves only one or very few visually impaired children and a number of sighted children, there are several suggestions that will allow the group to feel more comfortable and realize the objective of the activity:

a) Assess the visually impaired children's functional levels prior to the group experience. Also, attempt to determine to what extent the sighted children are aware of how a visually impaired youngster can be oriented to the physical environment, the activity, and the other participants.

b) Encourage the visually impaired child to have a sighted partner during active events so that the event may be described by the partner as it unfolds. Alter the space of the activity or allow for partners to complete the projects at their own pace. Be prepared to accommodate for the first and last children to finish.

c) Place the visually impaired child in direct or close contact to a reference point

—a door, record player, front row, goal, or the caller. Speak directly toward the child. Encourage other participants to avoid making unnecessary noises that interfere with the teaching situation. Use concepts or forms with which the visually impaired child is familiar to organize the class: For example, have the children sit or stand in a circle, a line, or a square.

d) Display positive behavior toward each child. Genuine praise and encouragement serve as motivational factors for everyone. Maintain patience while being firm, consistent, and impartial in all decisions. To avoid the display of favoritism, do not spend extra time with the visually impaired child unless it is required for special assistance.

e) Include safety and health instruction in all sessions. For example, provide assistants for tumbling or instruction in the use of equipment, such as in wood burning or arts projects. Always make sure all the youngsters are aware of emergency and first-aid procedures.

In a less structured experience, such as a lounge or drop-in program, or for a self-guided activity, such as a visit to a museum or nature walk, the leadership function of the recreation specialist is less defined. Responsibilities might include responding to the questions that the visually impaired child has prior to undertaking the activity or describing the procedure for using the resources. Providing an orientation to the area might be an initial responsibility of the recreation specialist.

The informal recreation experiences offer opportunities for individualized instruction in home-centered, hobby-type activities. During this type of activity, the recreation specialist serves as a counselor or advisor by directly assisting in the development of leisure time skills and providing references and resources to aid participation.

Before the actual implementation of the program, the recreation specialist will need to be sensitive to the level of awareness of other staff members or volunteers regarding visual impairment and help them become comfortable about working with the visually impaired children. It may be appropriate to conduct training workshops on orientation and mobility, and on visual impairment itself (how children can use their residual vision), as well as on the previously discussed programming and leadership techniques. Including the visually impaired youngsters in these in-service programs may be of benefit to the leaders and participants.

In addition to considering alternative leadership techniques for presenting activities, there may also be a need to modify the activity itself to enable both visually impaired and non-impaired children to participate on an equal basis. Through the activity analysis process, the recreation specialist would have already determined the difficulty of the activity. With this information, he can modify either the procedures, rules, or equipment to facilitate the progressive acquisition of skills for each participant.

Modifying the procedures of an activity can help the child achieve the objective. For example, simplify the motor behaviors (e.g., start with basic motor tasks, such as walking and rolling, rather than running and throwing); require the coordination of only one body part with an action rather than several (e.g., teach the child to sing and clap at the same time, before teaching a song with several hand motions); reduce the number of items that must be dealt with (e.g., construct a stage or scene from scratch rather than using precut patterns with many materials); and reduce the speed with which a task has to be performed.

Modifying the intellectual behaviors in an activity procedure would include, for example, simplifying the organizational patterns for team plays, reducing the number of facts to be recalled, decreasing the number of steps to complete a project, requiring selection from fewer alternatives, and applying a procedure learned for one activity to another (e.g., applying the stitches or knots learned in sewing and macrame to outdoor craft skills).

Figure 1. Blind youngster running with sighted youngster. Note mats on floor on left. This kind of safety hazard is easily eliminated.

Figure 2. Special bowling rail guides blind bowlers.

To adjust the emotional and social behaviors for a task requires control of the environment in which the activity occurs, such as reducing the number of participants, thereby decreasing the number of interactions, or structuring the activity so the participant comes into contact with fewer individuals. There are fewer social demands in partner activities than in team sports, fewer in table and board games than in square dancing.

Modification of the rules for activities can apply to structured group games, table games, contests, mass activities, and informal play. Examples of rule modifications include reducing the space in which the activity takes place, increasing or decreasing the number of players or positions, allowing more time or a greater number of actions, substituting actions (walking instead of running), using more or fewer body parts (sitting instead of standing, two hands instead of one), decreasing distances, reducing the time it takes to win or score, permitting assistants to complete actions, and developing new techniques to complete tasks (modified swim strokes).

Modification of equipment is another alternative in the adaptation of a recreation activity. Equipment modification for visually impaired children often allows them to use the auditory sense, e.g., audible balls, whistles, clapping, sounding or warning devices at the end of a performance area. Other assistive techniques include using surface textures; increasing color contrasts by controlling light and dark and the color of objects; marking objects with colored tape; folding articles in different ways; using containers of varying shapes to store objects; marking items in braille; and permitting the visually impaired children to handle, touch, and manipulate objects. Additionally, special devices may be added with the regularly used pieces of equipment: lead ropes, wires, flotation devices, ramps, rails, hanging items, noisemakers, stakes, markers, enlarged or substitute tools and balls, safety guides, and special assistants. All of these facilitate participation of the visually impaired child and can be arranged to avoid inhibiting sighted children.

In this phase of program development, the recreation specialist selects leadership methods appropriate to agency structures and program offerings. Next, using the information gained during the activity analysis process completed in the previous phase, decisions are made about specific ways to alter both leadership methods and participation requirements. During program implementation these specific techniques are used to deliver activities that enable participants to achieve the objects while satisfying their interests and needs.

Phase 5. Implementation and Monitoring of Program

As the receation specialist carries out the program, he observes or monitors it at regularly scheduled intervals to determine the appropriateness of the activities, leadership styles, and formats for achieving the objectives in each content area. Data collected during the monitoring process serve as process or formative information critical to the completion of the next phase, evaluation. Related tasks, such as publicizing events, reporting and recording results, supervising volunteers, maintaining supplies, and communicating with cooperating individuals and groups, also require attention.

Recreation programs designed to satisfy the expressed needs of the children in the community are diverse in nature. Activities are usually presented under several general program areas, including arts and crafts; music, dance, and drama; sports and games; outdoor recreation and education; social activities and special events; hobbies and special interest clubs; spectator events; mental activities and table games; aquatics; and community service projects. The degree of adaptation made in

leadership techniques or activity procedures, rules, and equipment will be dependent upon the functional level of *all* participants.

Factors that affect the functioning of both sighted and visually impaired children include previous exposure to the activity, motivation and energy level, environmental conditions (lighting, heating, weather), attitudes of the other children, conditions preceding and following participation; and anticipated goals of the activity. In addition, the functional level of visually impaired children depend upon their degree of residual vision, age of onset of visual impairment, previously developed mobility patterns, ability to utilize multi-sensory cues, and level of personal independence. Modification techniques for several of the general recreation program areas are outlined here.

Arts & Crafts

Arts and crafts, which play an important role within a community recreation program, encourage the inclusion of children who may be unable or unwilling to participate in active games and outdoor activities, as well as introducing them to recreational pursuits and hobbies that they can enjoy all of their lives. A new art form or craft is best taught on a one-to-one basis. As previously discussed, the recreation specialist should give clear verbal directions, use a "from-the-part-to-the-whole-to-the-part" approach, have samples available to touch, place materials so that they are easily accessible and in the same location all the time, orient the visually impaired child to the arts and crafts room, and use proper lighting conditions.

A child with loss of peripheral vision may prefer either an indirect uniform light source or a direct light source on the materials. The recreational specialist can assist the child in developing scanning abilities by encouraging him to scan the work area from left to right in an organized fashion, using the tactile senses as reinforcement.

A child with poor binocular vision, which affects depth perception, may have difficulty comprehending the dimensions of an art project, and have problems with painting to create depth, anticipating distance between points or parts of models and statues, or realizing photographic techniques.

A child with poor visual acuity needs to work with contrasting surfaces and colors, definitive lines and boundaries, and craft materials of varied textures. Low vision aids, such as telescopes or magnifiers, may help visual functioning.

Sight and vision disorders in children require lighting that creates minimal glare. Using mat (non-glossy) paper for art projects and making sure that the visually impaired child is not seated facing the window also facilitate the child's enjoyment of the activity.

Music, Dance, Drama

Within a community recreation program, the performing arts stress activities of a cooperative rather than a competitive nature. This type of activity is desirable in mainstreaming.

Music activities may require special materials such as audio tapes, large print, or braille music. If a new song is to be taught, it may be necessary to consider brailling the words or having them produced in large print. The visually impaired child may also wish to have the song ahead of time to study the words before the group meets. In teaching about different instruments, allow the visually impaired child to feel the different instruments and hear their sounds. If conducting a group in which a visually impaired child is participating, verbalize (e.g., when stopping or starting a piece) rather than just using hand motions.

A visually impaired child who participates in dancing should be oriented to the room. Point out visual or tactile clues to help the child maintain his orientation. Place

the youngster near the leader so that he can see the steps and allow him to feel the leader's position or movements. The visually impaired child can also demonstrate movements for the class under the guidance of the instructor or can be assigned a sighted partner. The substitution of swaying, walking, or sliding for dance steps or reducing the tempo of the dance are modifications that may be desirable.

Consistent placement of props, actors, standing or moving in the same areas in each rehearsal or performance, and a thorough orientation to the stage enable visually impaired youngsters to experience dramatic activity with little modification. Marking off the edge of the stage with a textured surface material or a contrasting color is a good safety measure. If the child cannot read regular print, provide the scripts and other materials on audio tape or in large type or braille.

Sports and Games

Sports and games require the movement of participants within a field, court, playing area, track, or target area. In these activities auditory and tactile cues may be used to help children who are visually impaired distinguish boundaries and goal areas. When a child's visual acuity, depth perception, peripheral vision, or central vision is impaired, the recreation specialist should be careful about using moving objects (such as balls, bicycles, horseshoes, and arrows) because the youth may not be able to react quickly enough to get out of the way of a piece of equipment coming at him. This situation occurs in many individual and team activities, as well as activities that are not highly organized.

When participants have impaired depth perception and visual acuity, use contrasting colors and clearly marked playing areas. Children with poor night vision may find it difficult to participate in evening games played "under the lights." The recreation specialist should identify verbally the location of other players and goal areas, making sure that the visually impaired child has established an accurate picture of the area. Totally blind children or those with little residual vision may require a modified pace as well as assistance in completing actions that require movement; thus, a buddy or partner system with a sighted peer is often appropriate.

Outdoor Recreation & Education

Outdoor recreation education includes all activities that occur out of doors and have a relationship to nature. These activities may be performed individually or with others. Examples of outdoor recreation are skiing, horseback riding, picnics, camping, nature walks, jogging, bicycling, bird watching, gardening, fossil hunts, or object identification activities. Safety is a primary concern because of the possibility of injury if, for example, the child should walk in the wrong direction on a dangerous trail or handle the wrong plant or animal.

If a child experiences difficulty with detail recognition or has holes in his visual field, a sighted guide should be there to identify poisonous plants or dangerous animals. A child who has poor binocular vision and experiences difficulty judging heights and distances between steps when hiking and climbing should be carefully supervised or assisted by a sighted friend. Children with poor central vision may require some guidance when walking or riding on a trail. Verbal instructions can be used effectively and are a good means of giving quick warnings.

When a child's peripheral vision is limited, establishing a mental reference map of the camping area or natural environment will help the child observe the outdoor setting in more detail and prevent such accidents as placement of the tent too close to a campfire area.

For all visually impaired children, outdoor areas should be barrier-free and acces-

Figure 3. Teaching swimming to a blind youngster.

sible, with clearly marked trails and dangerous inclines marked off with a rope. Equipment should be stored safely and not left around the area indiscriminately. Sighted children can be paired up with visually impaired children to work together on projects or to explore the area together. Certain activities such as skiing, boating, or horseback riding will probably require one-to-one instruction by the leader.

Aquatics

The kinesthetic method of teaching swimming skills is appropriate for land practice and stroke practice in the pool. Auditory cues, such as slapping the water to identify where a dive should occur or indicating the end of the pool area with a hanging auditory device, can be used to aid in orientation. Because swimming does not require vision, the activity allows for optimal independence on the part of the visually impaired child. Whether a child lacks central vision or peripheral vision, he can complete a lap of the American crawl without advice or support.

When depth perception is impaired or visual acuity is limited, a child may experience difficulty distinguishing between the deep and shallow swimming areas. Orientation to the swimming facility will enable the child to participate without additional guidance. A youngster without central vision must learn to dive with caution so that he does not enter the pool on top of another swimmer. When a person lacks peripheral vision, he will require additional time to adjust to group swimming and may need to move more carefully among the children in the group.

Spectator Events

Spectator events are usually plays, concerts, sports, movies, theatre, parades, and watching and listening to television and radio. Because the visually impaired child is usually seated and therefore stationary, the primary concern is that he sit

where he can see the event and/or that he have a sighted friend to tell him what is happening. The recreation specialist might find it a good idea to teach the visually impaired children about some of the spectator events they might enjoy and prepare them to handle the travel and communication requirements and related social demands of attending these activities. A major problem for some children may the lighting for a play or concert. There may also be difficulties involving the use of lights to signal the audience, for example, when an intermission is over and the play is about to begin. When lights dim, the child may require assistance, particularly in going up and down stairs and in and out of darkened areas.

Phase 6. Evaluation of the Program

During phase two of the program development process, the recreation specialist developed objectives that specifically listed criteria for performance evaluation. One central question in the evaluation of a program is the extent to which the staff and resources are organized to provide programs and services that will achieve the children's predetermined goals in a cost-effective and efficient manner. These predetermined behavioral outcomes were specified in the objectives written following the assessment of the participants, agency, and community. Evaluation tells the recreation specialist whether progress is being made; in essence, whether the children are experiencing desired changes in their physical, cognitive, and affective behaviors.

The program specialist will be required to provide evaluative information on several factors: participants, program activities, leadership, and the management of the areas/facilities and related supplies and equipment. Two techniques may be used to collect this information. The first involves the use of objective instruments. With objective instruments, specific factors such as fitness levels, academic performance, and recreation skills can be measured. The second technique, use of subjective evaluation, permits the collection of data by verbal discussion with the children and by observing and rating performance in recreation activites. There are a limited number of valid and reliable evaluation tools available for community-based recreation programs involving visually impaired children.

During the planning, implementation, and monitoring of the program, the recreation specialist collected formative or process data, information gathered while the program is in operation. Summative evaluations are completed following the termination of a program. In both instances, the specialist uses criteria specified in the objectives to determine whether the program was having the desired impact upon the participants. Formative evaluation permits the recreation specialist to have continuous feedback, thereby enhancing the potential for individualization of the activities and making success experiences more likely for all the children. Summative evaluation questions include: What were the outcomes of the program? Was the program implemented according to design? Were the activities and leadership techniques appropriate to the achievement of the objectives? Were there any unanticipated outcomes?

Phase 7. Revision of Program

The information gathered in response to the evaluation is compiled into guidelines for improving, modifying, or continuing the program. Results of evaluation may indicate a need to re-develop purpose, goals, and objectives, or to substitute different leadership techniques or alternate activities. Program revisions will be based on the many factors, not the least of which will be the needs, interests, and desires of the children. A voluntary recreation agency that normally offers seasonal programs may make changes prior to a new season; a school-based program may be

changed after one semester or quarter. Implementation of revisions may also be dependent upon the time required to recruit and train new staff and reorient the participants. Program revision may also be required if the number of visually impaired participants or those with multiple disabilities changes.

SUMMARY

Incorporating one, two, or more visually impaired children into a large recreation program does not require adjustments other than those normally needed to assure all participants of a positive experience. By developing a program according to the steps outlined in this chapter, the recreation specialist can promote accountability while establishing a direction for that program that is appropriate to the needs of all participants. Through assessment, program purpose, goals, and objectives that accurately reflect the status of the children, agency, and community are developed. In relation to the purpose, goals, and objectives, content is selected according to the results of an activity analysis process to assure that the recreation activities meet the participants' needs. Program structure is determined by content, selected to satisfy the objectives of the program. Leadership techniques and implementation procedures result from the previous assessments and content requirements. Behaviors of the children are evaluated periodically to determine if objectives have been met.

This process of program development will vary with the agency setting and the extent to which visually impaired children are integrated into the community. For example, if the program structure is a class conducted by a leader, there will be more need to have a specific design than if it is a drop-in program.

Programming adaptations occur through the modification of activity procedures, rules, and equipment or supplies. With assessment of the children and activity analysis information, accommodations can be made to suit each child and achieve the program objectives. Modifications will vary with the type and extent of visual impairment as well as with the age of the onset of the impairment.

The spectrum of potential recreation experiences is broad. Trial runs with various modifications will result in the delivery of the activity in the most feasible way. A creative programmer will focus on the abilities of each child in order to maximize the positive, growth-producing outcomes of recreation participation. Most important of all, the recreation specialist must not lose sight of the fact that recreation should be a fun experience, bringing joy and happiness into the life of the visually impaired child. In this sense, recreation provides a unique opportunity to facilitate optimal growth and self-fulfillment in such a way that it can bring new meaning to life.

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CHAPTER 5

Understanding Parents of Visually Impaired Children and Youth

By Beverly Z. Hummel and Jean L. Kelley

A recreation specialist providing programs for children and youth is likely to have considerable contact with parents, brothers, sisters, and other members of the program participant's family. Parents may serve on program advisory committees or as coaches, volunteer drivers, den mothers, and in a host of other roles essential to effective community recreation programs.

Just as children participate in recreation programs for many different reasons, so parents also bring a wide variety of needs, motivations, and personal interests to the recreation setting. Some parents seem to seek out ways to become involved for the sheer enjoyment of helping out. Others are content to stay in the background. Some parents are talented, sensitive persons whose leadership and enthusiasm bring a spirit of joy and success to a program; others may lack maturity and stability or may be trying to relive their own youth through their children. In any case, the experienced recreation specialist realizes that success is often determined by his skill in working with and relating to parents and relatives.

Most recreation specialists are able to interact with parents competently and comfortably. However, relating to parents of disabled children may be a new experience. Parents of visually impaired children are basically no different from any others except that they have struggled with additional dimensions of parenthood that are not always clearly understood by those who have not given birth to or attempted to raise a disabled child. If the recreation specialist can understand what it is like to be the parent of a disabled child, he will find it easier to interact with parents of visually impaired children in his program.

For most adults, looking back on growing up brings to mind memories of an active youth filled with games, the running, playing, teasing, fighting, laughing, and crying that seem to be universal experiences of childhood. As individuals grow and move into adolescence, adulthood, marriage, and parenthood, it is reasonable for them to assume that their own children will go through much the same patterns of

growth as they did. When a problem does arise with their own child, watching the boy or girl struggle with the difficulty will usually jog their memory of some past experience in their own growing years and this will aid them in guiding the child through difficult times.

Memories may not serve quite the same function for the parents of a visually impaired child. As potential parents, they looked forward to their child's birth with high expectations. Although there may have been some awareness of the possibility of having a baby with a disability, most parents were not prepared to face this as a reality. When it happens, they are shocked and confused. Their own early years had not prepared them to handle such an occurrence.

It is natural for parents of a child with an impairment to think of the many things that their child will not be able to do or that they cannot imagine him doing. They worry about his future welfare, his social and economic adjustment: "Can my child go to school?" "Can he become self-supporting?" "Will other children want to play with him?" "Can he learn to swim or ride a horse, or even run and play like other children?" Anxieties develop when parents cannot answer these questions. They worry about what will have to be done for the child, where they will get the money to pay for services, how they will tell their relatives and friends. They wonder if they are at fault for the impairment.

It is quite normal for parents of a disabled child to feel anger, despair, disbelief, and self-pity. However, if carried to an extreme, these feelings may prevent them from developing a close, loving relationship with the child. Without understanding why, they may be reluctant to play with the child or to take him to public places. Expressions of pity and sympathy from others may cause anger. They may be embarrassed and try to protect themselves or the child from some real or anticipated discomfort. This can lead to parents becoming overprotective and needlessly robbing the child of his independence and the opportunity to lead a normal life.

Parents of a visually impaired child are often in turmoil—and this is true whether the child is impaired from birth or becomes impaired later in life. They may blame themselves for the child's impairment. They may feel that something they have done has caused the disability. One blind person, Tom Sullivan, describes his father's feelings this way:

> . . . assailed by guilt, he would protest to Mom that he was responsible. Had he not gone on a wild weekend to Florida with his Irish friends the week before I was born? If he had stayed home, would my mother have carried the child full term? (Sullivan, 1975)

Parents may also feel that they have not done enough or have not done the right things for their child. Perhaps the medical care was not adequate or perhaps they sought help too late.

The impact of a visually impaired child upon the family can be traumatic. The severity of the trauma will, of course, vary with the extent of the visual loss and with the ability of the family members to deal with personal crises. It bears emphasizing that the same visual impairment will be regarded differently by different people and that individuals are not alike in their ability to deal with loss situations and trauma. Although unique reactions occur with each individual or within a family, generally speaking there is a "common" or "standard" process of dealing with personal loss and trauma that is similar in all people.

From the initial phase of disbelief to the final stage of acceptance, the intervening steps are fairly predictable and applicable to both the individual, in this case the visually impaired child, and the families of individuals facing a severe loss situation. While perhaps different in some respects, behavior manifestations associated with a major loss such as sight are similar in many ways to those identified with mourning.

Figure 1. A flutist who just happens to be severely visually impaired.

The progression through certain stages is viewed as a normal and perhaps even a necessary process. All stages must be experienced to a greater or lesser degree before the individual can make an adjustment or resume a normal lifestyle.

THE MOURNING PROCESS

It is valuable for the recreation specialist to understand the stages of the mourning process since knowledge of the behaviors involved can be important in understanding parental actions that might otherwise be misinterpreted as abnormal or maladaptive. It should also be kept in mind that individuals who move through these stages of loss do not do so in an easily observable pattern nor do they proceed in the same clearly defined sequence. Although in the following discussion, the stages of mourning will be considered separately, in reality, as individuals move through the mourning process, there can be a great deal of overlap of these stages. In addition, reactions and behaviors are individualistic and can be idiosyncratic.

The recreation specialist should also be cautioned that it is not being suggested that he assume the role of a therapist with parents. Rather, it is hoped that he will understand the unique difficulties faced by parents of a visually impaired child. Also, while this discussion relates primarily to the parents of the visually impaired child who is born blind, mourning would also be experienced by both the parents of a child with an acquired visual impairment and by the child himself. Children who have not known sight or unimpaired vision do not experience or embrace the concept of visual loss as it is understood by sighted children or adults. For them, impairment or lack of vision is "normal." They have known no other visual condition. A loss has not been experienced.

Stages of Mourning

The five stages of mourning are denial, bargaining, anger, depression, and acceptance. The first stage, denial, operates on an unconscious level to help the parent ward off excessive anxiety. This defense mechanism diminishes over time but serves a very important function by providing an emotional "cushion" as the parent begins to absorb the shock of what has happened and gathers the emotional resources needed to cope with the realities of the disability. While absorbing the shock, the parent may deny the condition, refusing to believe what they have been told. Perhaps they will go from physician to physician with the hope that someone else will tell them that the condition is nonexistent or at least reversible.

Bargaining is the second stage. Bargaining indicates an increasing awareness of the disability. Underlying thoughts lead a person to believe that if he works hard, the visual impairment will go away or at least be less severe. For this reason, some parents of disabled children become immersed in activities for the disabled. Others turn to religion and try to strike a bargain with a higher power. While most recreation specialists will not be dealing with parents at such an early stage in their adjustment to a child's visual loss, if they do find themselves in this situation, they will need to be understanding and sensitive and must be particulrly careful not to exploit or take advantage of parents during a period of vulnerability. Certainly, the parents should be invited to assist or participate in programming; however, if the involvement has been initiated as an expression of the bargaining stage, the recreation specialist should realize that the parents' participation will diminish as they are better able to deal with the child's disability. This lessening involvement should be viewed as a positive movement toward greater acceptance of the impairment and not loss of interest in the child or the program.

Anger is the third stage. Anger may be a sign that the situation can no longer be denied and in that sense, it may be a positive indication of progression toward acceptance of the loss. Anger may also be an expression of fear. The angry parent may be fearful for himself or he may be fearful for his child. The expression of anger can take many forms. One form, although rare, may be harsh treatment or neglect of the child. If, on the other hand, the anger is projected outward, parents may blame others for the child's condition. At this time, parents can be helped by knowing that someone else does care about them and their child and is able to allow them to express some of their feelings in a climate of empathy and trust.

The fourth state is depression. A distinction should be made between the depression that is part of the mourning process, sometimes referred to as "grief depression," and the pathological depression that is associated with psychiatric disorders. Grief depression is a normal reaction to a recognized loss. In fact, it indicates that the individual is becoming more aware of the realities of the loss.

The final stage, acceptance, refers to dealing realistically with the disabling condition. It is at this time that parents are able to face the difficulties involved in living in a society that has little understanding of blindness and visual impairment. The child's limitations are acknowledged and evaluated accurately. Ways for the family and their visually impaired child to assume normal roles in society are pursued appropriately, indicating that parents and child are on the way to positive growth and adjustment.

It is important to restate that the degree of acceptance of the disability, as well as how the stages are expressed, is highly variable and individualistic. There is no direct and constant progress from one stage to another, and it is not uncommon to observe a regression to an earlier stage. It is also important to recognize that even when the individual is mourning, other events in life do have an influence on him. The recreation specialist should be aware too that the acceptance and understand-

ing he exhibits toward the visually impaired child provide valuable support for the parents as they are learning to cope with the challenges of living with blindness or visual loss.

Getting through the initial feelings of guilt, embarrassment, denial, bargaining, anger, and depression may take a few months or a few years. Some parents may never fully overcome these feelings and never fully accept the visual impairment of their child. However, they can be helped to realize that they are not alone, that other parents and children have faced similar problems and found solutions that have led to successful life-styles. Often the opportunity to communicate with other parents is helpful in bringing about this awareness.

The recreation specialist can assume the role of facilitator in organizing parent groups. Also, he may arrange activities in which parents and children participate together, such as a family swim night or an arts and crafts class, with some time set aside for parent discussions.

Sometimes parents need the chance to relax and be away from their children. At the same time they want to know that the child is receiving adequate care. This kind of support helps parents to bring renewed energy to their work with the visually impaired child at home.

OVERCOMING ATTITUDINAL BARRIERS

As parents' acceptance of the disability increases, they recognize that it is not necessarily the child's visual impairment that limits adjustment; it is often the child's perception of himself. It is not the visual loss but rather the attitude toward the loss that is the barrier to living a full life.

Figure 2. Mother playing chess with her blind youngster. Chess figures are easily identified by touch.

Attitudes and self-concept are shaped by the physical, social, and interpersonal environments. Like any other child, the visually impaired child's self-image reflects the attitudes and behaviors of his parents, peer group, and society in general. If he is respected, valued, and treated as an individual, the child will develop a positive self-image. Acceptance, love, trust, and understanding promote confidence and independence. On the other hand, if he is overprotected or rejected, the child may withdraw and lack motivation. Ultimately, the attitudes of a visually impaired child toward his visual loss will determine his success or failure in all areas of life.

Participation in recreation is influenced in large measure by the realistic acceptance of the visual impairment not only on the part of the child but also by his family and by society. The recreation specialist must become aware of those attitudes that lead to successful participation and those that stand in the way of progress and growth. Most important of all, the recreation specialist must realize that the nature of the recreational experience itself and the method by which it is made available can be crucial in terms of the development of a healthy self-concept.

PARENTS AND THE RECREATION SPECIALIST

We are acutely aware that parents play the central role in the early adjustment of the visually impaired child. We have considered some of the emotional trauma faced by parents of children with visual impairment and are aware that parental reactions to the child's impairment are varied, differing from family to family and even from parent to parent in the same family. We know that the attitudes of the people who interact with the visually impaired child have a profound effect on his adjustment and self-image.

For most recreation personnel contact with parents is brief and in some cases indirect or nonexistent. Contrary to the norm, the recreation specialist who works with disabled children is likely to have frequent contact with parents. This opportunity to interact with parents can provide valuable insight into the child's development and can stimulate meaningful involvement with the child through more effective identification of his needs.

Working with some parents, however, can be a major challenge. From our own childhood experience we could probably compile a list of many of the different kinds of parents there are. These include the overprotective parent, who can always be depended upon for too much help; the dependent parent; and the hostile parent we avoided because we did not want to be subjected to angry outbursts. Perhaps we have even encountered the sting of intimidation caused by the "all knowing" professional parent.

It is quite understandable that in our daily routines we attempt to avoid those who in previous situations have caused us the greatest personal discomfort. Indeed, we may have become quite adept at these avoidance tactics. When working with the visually impaired child, however, the recreation specialist is likely to encounter all types of parents, and it is important that he be able to deal with them in such a way as to maximize his potential productiveness in working with their child. Effective communication and interaction with parents are essential.

The following descriptions of certain types of parents are brief and simplified, and, obviously, there are dynamics beyond those identified here that affect interpersonal relationships. However, it is hoped that these characterizations and suggestions will be of some assistance to the specialist in improving communication with parents.

The Overprotective Parent

"Button your coat." "Look both ways." "Take your pill." "Don't do that; you might get hurt." We can all remember the admonitions of our own parents. But if this over-

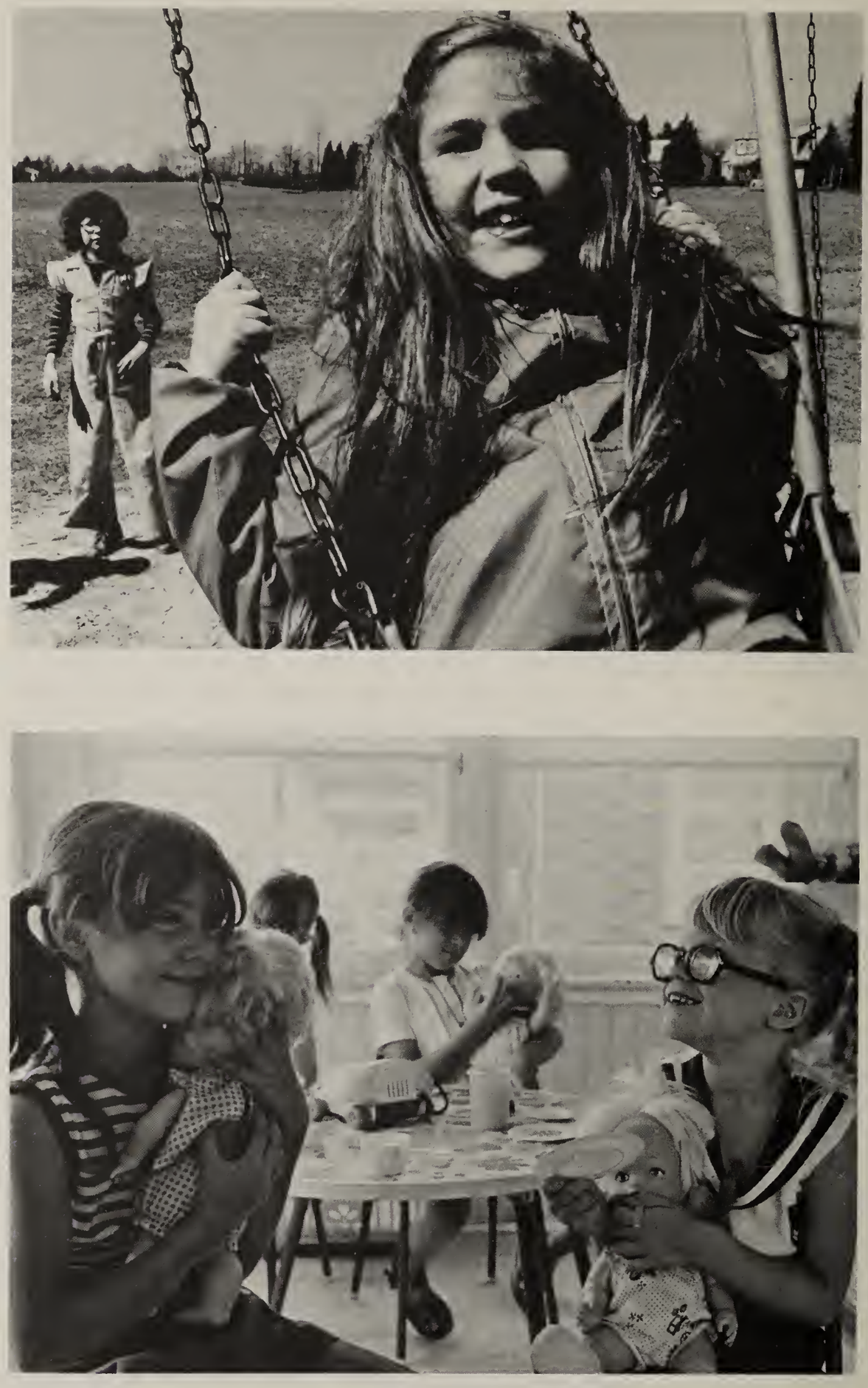

Figure 3. Blind and visually impaired youngsters enjoying common recreation activities.

protectiveness continues for too long, it can prevent the child from developing his own common sense and can retard the development of a healthy self-concept. This behavior can do harm to the child who is not disabled, and can do even greater harm to the disabled youngster, who may have fewer opportunities to develop self-esteem.

Perhaps the overprotective parents were raised by overprotective parents themselves. They may be frightened of what the future holds for their child. It may be that having someone depend upon them increases their own sense of importance. Perhaps they feel that the child has been through so much that he should not have to experience any more difficulty than is absolutely necessary. Whatever the cause, overprotectiveness leads to dependency and reduced social competence. All children need experiences that prepare them for independence. These experiences do involve a certain degree of calculated risk-taking, but they are necessary if the child is to achieve independence and optimal growth.

The recreation specialist can help by sharing his pleasure with the parents when he recognizes evidence of independence in the child's activities. Parents can be encouraged to appreciate their child's achievements. Recognition of these achievements by a neutral person can often help the parents to become aware of previously overlooked accomplishments and strengths in the child thus prompting them to allow greater risk-taking in future recreational pursuits.

The Dependent Parent

"How is Billy doing?" "What should I do next?" "When can Jane play outside?" "Can I let her throw the ball?" The dependent parent is usually very cooperative because he often lacks the confidence to make decisions. It is much easier or less threatening to follow the directions of someone else. Being recognized as an authority can be enticing to the recreation specialist, and it is easy to allow the dependent relationship to continue. However, the goal of the recreation specialist is, as in other helping professions, to encourage the development of independence on the part of the parent as well as the child.

There are many reasons why a parent may assume a dependent role. Perhaps the parent was raised in an authoritarian home and never developed his own sense of personal autonomy. Perhaps the responsibility of raising a visually impaired child is too much to handle and he is overwhelmed. Maybe the individual was never given an opportunity to make decisions and thus finds it difficult to assert himself in child-rearing duties. It might also be that doctors and other health professionals have intimidated the parent into a state of fearfulness with excessive emphasis on precautions and safety.

In dealing with the dependent parent, the recreation specialist must refrain from the temptation to give advice too quickly; he must encourage and reinforce all attempts at independence. However, it is important to continue to be supportive so that the dependent individual, who may already be overwhelmed, is not placed in a situation that increases his feelings of inadequacy.

It is also important to remember that dependent parents frequently have difficulty refusing a request for assistance. Therefore the recreation specialist must take care not to exploit them by asking that they contribute any more of their time and resources in support of the program than they would desire to contribute, or more than would be expected from other parents.

The Angry Parent

"What do you mean by that?" "How dare you suggest. . .?" "Didn't anyone ever tell you. . .?" "Well, let me tell you. . ." It may be difficult or impossible to under-

stand the source of a parent's anger, but when it is directed at you, the impact can not only be frightening, it can also be devastating.

Perhaps the angry parent is merely reflecting the third stage of the mourning process. Perhaps the anger is due to a justified cause and the parent knows no other way to express concern or fear. It may be that the anger directed at the recreation specialist is really caused by something over which he has no control. It should not be the role of the recreation specialist to act as psychologist and attempt to uncover deeply rooted causes of anger. It is important, however, to know how to respond in an appropriate manner.

The first reaction to anger seems to be to retaliate anger, but this only escalates the situation with little benefit to anyone. The recreation specialist should realize that whatever is causing the anger is probably not his responsibility, but at the same time he should make the effort to listen carefully in case there is, in fact, some basis for the anger. As difficult as it may be at times, the recreation specialist must make every effort to maintain self-control and calmly search for an avenue for positive communication.

Remaining calm in the face of anger can be disarming to the parent. Again, because listening carefully to the parent may uncover potentially dangerous situations which need correction, anger must never be ignored.

The Professional Parent

"As a result of my many years of experience, it is my judgment that. . ." "At the last board meeting I spoke with your supervisor." "Since my degree is in. . ." The professional parent may be intimidating by his own choice and design or he may appear to be intimidating because of the recreation specialist's own feelings of inadequacy in relating to certain types of professional people.

In either case, it is important for the specialist to remember that in this area of service, he is the expert. While it would be self-defeating not to acknowledge a parent's good suggestions, it is inappropriate to make unnecessary changes in the child's program simply because of the parent's status as a professional person.

The recreation specialist needs to remember that the professional parent, like all well-intentioned parents, wants to be assured that his child is being cared for in a competent manner. Sometimes a parent may be testing the recreation specialist to see how he can withstand pressure, to see if he can be trusted in a difficult situation. Sometimes, parents are attempting to acquire special favors for their children. Cool, calm professionalism and the ability to resist inappropriate pressure will instill the parents' confidence in the specialist and reap rewards in terms of program objectives.

As previously stated, success in working with any child is strongly influenced by understanding the parents and in working skillfully with them. If this is generally true for all children, it is especially true for the disabled child. The time invested by the specialist in developing techniques for relating to parents of all types will pay rich dividends in terms of the outcome of the program. These skills can be enhanced further by consideration of the role of the family in recreation.

THE FAMILY AND RECREATION

Since the home is the first school and recreation center, the parents are the first teachers and recreation leaders. They assume a large role in preparing their children for leisure through guidance in play activities. They help the child select appropriate toys and expose him to a variety of recreational pursuits, paving the way toward the development of the ability to make good use of leisure time.

It is important for the recreation specialist to understand the role the family assumes in raising a visually impaired child not only in terms of helping the child develop a good self-image, as previously discussed, but also in terms of introducing him to and encouraging his participation in activities. While the recreation specialist is unlikely to be working with a very young child, knowledge of how parents promote optimal child development will lead to a better understanding of the older child, who is a product of his upbringing. It is through this understanding that the specialist can appreciate the importance of attitudes expressed by the child, and thus be able to develop the most appropriate program goals.

Early Childhood

Parents must begin to help the child compensate for lack of vision as soon as the impairment is identified. Aiding the infant or young child in receiving sensory input from his environment is critical for optimal development. When a child is deprived of this input, deficits in learning and understanding may occur. Parents must also link sensory experiences with verbal cues and reinforce actions with words. Failure to talk to a child about what is happening to him (in areas such as feeding, changing, and dressing) can prevent his linking appropriate language to those experiences. This deprivation fosters the inability to respond in socially acceptable ways.

When a parent cares for a child who is visually impaired, feeding movements include guiding the child's hand in order to encourage him to learn to feed himself. Physical closeness that occurs in rocking, cuddling, and playing is as essential for the visually impaired child as it is for all children, and all of these actions are accompanied by a commentary on what is happening. (If a recreation specialist does work with very young children, he should explain the activities in the same manner.)

Figure 4. Dad guides his visually impaired youngster who is learning to use a balancing toy.

Figure 5. Blind youngsters can—and should—learn to be independent early in life.

Motor experiences such as crawling and walking also require the parents to guide the child and describe the movements. Body awareness and body image are also enhanced by talking about the various body parts and by helping the child to locate them. Demonstrating how the body parts move can further aid in enhancing body image.

Motor development in visually impaired children often progresses at a slower pace than in sighted children; consequently, the parents must make every effort to aid the child's locomotion by giving him reasons to move. Not having the external motivation supplied by visual stimuli, the child will need incentives for moving and will need to be shown ways that he can do so. Common household objects, preferably those that make sounds and have interesting textures (e.g., brushes, bells, containers of various sizes and shapes) as well as audible toys help stimulate reaching, grasping, and other types of exploratory movements that can lead to crawling, pulling up, and walking.

Childhood

A child's learning is dependent on play. In the home, the kitchen serves as a giant toychest. A bottom drawer or shelf of assorted utensils and pots and pans can provide hours of play and learning as the child fits these items together, putting them into each other and taking them out, and making music by banging pots and pans together. (The recreation specialist can use these same items to encourage movement as part of the structured recreation program.)

It should be remembered that the use of real implements has an advantage over toys for the child who needs to develop relationships with the real world. Toys tend to be miniature representations of the real world rather than parts of the real world itself; therefore, the child must be helped to understand the relationship of the toy to the real object. For example, the child should be helped to compare a toy car or truck to the real thing, a doll to a living baby, a toy broom to a regular sized one.

As the toddler grows, the outdoors can provide a stimulating environment for early learning. Grass, trees, rocks, sand, water, and different types of terrain (hills, rocky areas, flat places) add variety to his experiences. Ideally, early play activities should include playing in sand, water, and snow; playing on the ground, on sidewalks, grass, and stairs; running, skipping, galloping, hopping, jumping, climbing, swinging, sliding and rolling; throwing, bouncing, and catching a ball. Movement through the use of other objects (e.g., tricycles, wagons, skates, sleds, and scooters) is also important. All of these early learning experiences that we take for granted with sighted children must be consciously offered, and, if necessary, adapted and modified for the visually impaired child. If the parents have not provided these opportunities, the recreation specialist will need to begin with very basic activities before going on to more demanding ones.

Appropriate activities for the visually impaired child might include music (singing and rhythm instruments); dance and other forms of movement to music; crafts; games and puzzles, especially those that teach size relationships, textures, and shapes; poems and stories; and trips to the playground, park, zoo, lake, river, and ocean. These activities can assist the child in understanding the world around him. The visually impaired child needs to enjoy all the adventure, all the play, and all the work that the rest of the family does.

Some parents may let their child listen to television, records, or the radio while the rest of the family participates in active recreation or household chores. A child will learn little about the real world if he is not included in these activities. Moreover, social and emotional development can be impaired. He can and should be part

of all family activities: shopping, trips, cooking, and gardening; in other words, the visually impaired child must be integrated into the family just as the recreation specialist and others are attempting to integrate him into the community.

It is important that the visually impaired child have all the opportunities and experiences that other children have. Recreation specialists, parents, and teachers can all encourage participation in a variety of activities. If the child seems to be apprehensive about trying new activities, giving him relevant information, enough experience to choose among activities, and freedom in making choices can help to alleviate initial fears.

Teenage Years

As the visually impaired child enters his teenage years, the importance of social interaction and involvement with peers increases. Contact with many different types of people and activities can provide a significant learning experience. As the young person moves from childhood to adulthood, parental influences will be exercised in a more subtle way. Family recreation activities may still be important to the teenager, but the activities of the peer group are much more important. The recreation specialist can facilitate valuable opportunities for this type of interaction through integration of the visually impaired teenager into regular programs.

CHALLENGES AND CHOICES

For the recreation specialist who strives to involve the family in the provision of recreation services for the visually impaired child, the rewards can be satisfying and the consequences far-reaching.

All children depend on parents, families, and community services to supply the favorable support system that enables them to grow into happy, healthy adults. The visually impaired child is no different; his needs are the same as those of any other child. Normal growth, development, and adjustment are maximized when the family and community work together to promote services and opportunities that enrich the lives of all children in the community.

The family is acknowledged to be the social unit most responsible for the early development of the child. For the visually impaired child, who may have limited opportunities for community interaction, the role of the family is of even greater importance. This increased importance, however, can bring greater stress into the family unit. Although parents of a disabled child are no different from other parents, they have struggled with dimensions of parenthood not faced by the majority of parents. They must deal not only with "typical" family problems but also those posed by the disability. To be effective, the recreation specialist must try to understand and empathize with the problems of the parent.

Attitudes of the visually impaired child, dependent upon the attitudes of those around him, are vital to his development of a positive self-image. Just as the attitudes of parents will influence the child, so will those of the recreation specialist. As one important segment of community life, recreation can be a powerful impetus toward the parents' acceptance of the disability and toward the child's development of a positive self-image. The way the specialist interacts with the child, the acceptance of the child's limitations, and encouragement in new activities, all aid the child's striving toward healthy growth and development.

When working with the visually impaired child, effective communication and interaction with parents becomes essential. To do this, methods for effective communication with all types of parents must be developed. Communication with parents

can be enhanced by attempting to understand them as people who have the same hopes and dreams for their child as any other parent. And, like any other parent, they do not always know the best way to achieve those dreams. The recreation specialist has the opportunity to help them achieve their goals. Thus he will be making an extremely valuable contribution to the development and well-being of the child.

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CHAPTER 6

The Administrator's Role in the Provision of Recreation Services to Visually Impaired Children

By Simone Rollin-Lazarus and Irving R. Dickman

No matter how deep the recreation administrator's sense of commitment to the concept of extending recreation services to *all* children and young people, he may well view a proposal—or a demand from parents—to bring blind and visually impaired youngsters into recreation programs with considerable trepidation. The spectre of safety, staffing, programming problems and—now more than ever—of added costs may daunt the most dedicated planner.

In reality, however, experienced administrators testify that any additional costs are minimal and that while there are some real problems, none of them are insurmountable provided that there is thoughtful planning.

"It does not cost a great deal," says Joseph E. Curtis, now commissioner of human services of New Rochelle, N.Y., and formerly commissioner of parks and recreation in Boston (personal communication, August, 1981). "Customarily, recreation directors would claim that the entry of blind people, even one or two, would require additional highly trained people, new specialized equipment and supplies, etc. Fortunately, this is changing rapidly. *Any* addition of participants to a program will add some small additional costs but not in the magnitude we used to claim."

Over and above what inclusion means to visually impaired youngsters, there may be some unexpected pluses for the recreation program, Mr. Curtis adds.

Many, if not most, officials agree that bringing disabled children into recreation programs is desirable but just too expensive. But in Boston there were many instances when public officials who had been cool to recreation services for developmentally disabled youngsters were very much moved when they saw visually impaired and other disabled boys and girls playing with non-disabled youngsters. And when they were shown that this had been done with very modest expenditures, they were completely won over—and lent much support to the recreation program later on.

While there will almost certainly be problems and emergencies—Murphy's Law, says Mr. Curtis, applies here as in any organized effort—"those things that disturb most are not the result of the youngsters' disabilities but of a lack of foresight and advance planning." Robert VanDeventer, coordinator of the Detroit Recreation Department's Specialized Service Unit, confirms that there are no insurmountable difficulties (personal communication, August, 1981): "Major problems did not occur, as our staff did an excellent job of anticipating the needs and desires of the visually impaired and their integration into the existing programs."

Expenditures are low, according to these and other recreation administrators, because what is involved is not the creation of specialized programs, but including visually impaired youngsters in programs with sighted children. (Although current laws may change, the principle of providing services to visually impaired children in the environment most suited to the child's needs will continue to be part of the law and public policy with regard not only to academic education but to federally funded school and recreation programs as well.) While it is true that there are children with visual impairments and other handicaps who need specialized therapeutic services, and still others, moving from specialized settings into the educational and recreational mainstream, who need transitional recreation programs, nevertheless, in every sizable community there are visually impaired youngsters who do not need costly special programs, but only—to quote Karen Luxton and Jerry D. Kelley, in Chapter I of this book—"the enjoyment and rewards available in healthy recreational outlets and opportunities... the associated cognitive, physical and emotional development that evolves through play experiences and recreational activities."

Many of the visually impaired youngsters who can and want to participate in community recreation programs are already integrated into regular schools. In the words of Marcia J. Carter and Jerry Kelley, Chapter IV, they are "children who may [already] be considered mainstreamed to the extent that they no longer require residential care or structured intervention," who do not need therapeutic recreation but only activities which "bring [them] an element of pleasure and fun."

Goals and Objectives

Goals for visually impaired children and young people in community recreation programs do not differ greatly from general program goals, though there may be a need for more specific identification and sequencing of intermediate objectives for the individual participant. Aside from the general goals of recreation programming, goals specifically designed to meet the needs of the visually impaired child include:

1. Provision of a systematic means for promoting the development of the youngster's leisure activities.
2. Development of a comprehensive program concerned with the child's attitudes, coping mechanisms, behaviors, and skills.
3. Provision of a wide variety of recreation opportunities for visually impaired children, regardless of the degree of visual impairment.
4. Development of a program of normalization, providing the visually impaired child with a continuum of services so that he can participate in the same activities as his sighted peers.
5. Avoidance of labeling or stereotyping with regard to activities, i.e., not predicting, but discovering, what the visually impaired youngster can or cannot do.

Each visually impaired child has the right—not only legally but morally—to be given the opportunity to participate in recreational activities and to be evaluated with regard to his readiness for these activities. Very often the recreation adminis-

trator or staff person can get some general indications of the youngster's readiness from a review of his general background and participation in school and other programs. Parents, concerned professionals, and the child himself can provide even more specific clues.

However, there will be occasions when only a trial period in a specific program or activity will provide an actual (rather than a theoretical) assessment of the child's skill levels, ability to act in an appropriate and socially acceptable manner for his age group, and capacity to complete activities independently or with minimal assistance. Such judgments—plus observing what the youngster enjoys most—will determine where the child might best fit into the program.

It is worth noting that these are basically the determinants that are used to judge the readiness of any child for sports, games and other activities. Where there is some doubt, the administrator or responsible staff person should opt for attempting more rather than less: The blind or visually impaired athletes who have won medals at wrestling, parachuted onto ground targets, or gone in for downhill skiing are undoubtedly "superstars;" but if they had been labeled only as "the blind," they would never have had a chance to *show* their abilities.

Special Equipment

While visually impaired children can participate in many of the same activities as their sighted peers with little or no special adaptations, sometimes modifications are helpful. Linked to the consideration of adapting activities for the visually impaired youngster is the possible need for special equipment, not an insignificant concern in these budget-conscious times.

However, there is no major cause to worry, Joseph Curtis feels, noting that staff people in recreation departments are usually highly skilled and adaptable. "These people," he says, "are quite capable of planning program changes and adding whatever small items may be necessary to accommodate a blind participant." Even this is optional. He adds, "If budgets are tight and programs are simple, there is no specific equipment that must be required. Good leadership and sympathetic assistance are the critical requirements, not special equipment." Robert Toalson, general manager of the Champaign, Illinois park district, notes that in bringing visually impaired youngsters into his recreation programs "there have been some minor additional expenditures for such equipment as special ramps for bowling, beep balls, and braille playing cards," but no more (personal communication, August, 1981). And Detroit's Robert VanDeventer confirms that only minimal outlays are required: "Additional expenditures were not necessary, with the exception of the purchase of bicycles-built-for-two for use by visually impaired participants with assistance from staff or volunteers. We were also fortunate to be able to use extensive equipment provided by the Detroit Board of Education."

To help determine whether any special equipment will be required, or whether standard equipment can and needs to be adapted, the recreation department may want to bring in a resource person from a local agency for blind persons, or from a state agency or educational department. Someone with this background may not only be in a position to suggest the need for fewer rather than than more purchases but how to adapt available equipment at minimal cost. (The recreation specialist or supervisor should also remember that there is always at least one resource person on hand—the youngster himself.)

There is no added cost or need for special equipment, for example, in including a visually impaired child in a clay modeling group, a swimming class, a folk dance group, or in the cast of a one-act play. Cost is minimal for the purchase of a ball with

Figure 1. A visual impairment does not have to impede participation in an activity. The photo on top shows what a player with normal vision sees from 25-30 feet. The bottom photo approximates what a player with 20/600 visual acuity sees from the same distance.

a bell inside, or installation of a guide rail for bowling, or rope to mark off lanes in track events. Also, the youngster with useful vision may not need the beeping ball but may only need to have a regular ball painted a bright color. In archery, an auditory signal behind the target may be all it takes to allow the visually impaired youngster to join in the fun. Craft materials may need to be made larger. A table game can be adapted by raising the markings on the board and using different shapes for each player's pieces.

The necessary adaptation often requires ingenuity, rather than money. One administrator recalls, "Our staff found that the visually impaired participants often have a short attention span during stories and songs. The staff overcame this problem by using books with tactile characteristics, i.e., feeling fur for a dog, or smelling cedar or maples leaves."

Safety is another area in which consulting a resource person may be helpful. Even without special guidance, however, common sense indicates that a toy with sharp edges may be too dangerous for a child who must feel it and indeed may also be unsafe for the sighted child.

Adaptation of Activities

For the recreation administrator worried about the amount of adaptation that activities will require with or without special equipment so that visually impaired youngsters can participate, it must be remembered that not all youngsters can or want to join in every activity.

Before a visually impaired child joins the program, it is quite appropriate for the administrator or supervisor to consult with the parents, teacher, resource person, and the child himself about the youngster's skills, likes and dislikes, and ability to participate. It is usually possible to find activities which require a minimum of adaptation. Also in some activities it is possible to modify the rules slightly, adapt the playing time, or add sound cues without changing the basic nature of the activity itself. The youngster with limited vision may never be able to participate in a full-court basketball game, but he may turn out to be the best foul-shooter on the court.

As Marcia Carter and Jerry Kelley indicate in Chapter IV:

> Incorporating one, two, or more visually impaired children into a large recreation program does not require adjustments other than those normally needed to assure all participants of a positive experience. . . . Programming adaptations occur through the modification of activity procedures, rules, and equipment, or supplies. With assessment of the children and activity analysis information, accommodations can be made to suit each child and achieve the program objectives. Modifications will vary with the type and extent of visual impairment, as well as with the age of the onset of the impairment. . . . Trial runs with various modifications will result in the delivery of the activity in the most feasible way.

"Especially when it comes to special events," says Joseph Curtis, "it may just not be possible for visually impaired and other developmentally disabled youngsters to participate in all the events. But you can arrange for them to participate in nine out of 10, and still make them happy."

Yet while it is true that not every youngster has to take part in every activity, the thrust should be toward more activities rather than fewer. A recreation program is not really "including" the blind or visually impaired youngster if it accepts the myth that all he can do is listen to the radio or records, read braille, and play a musical instrument.

Here again, resource people can be helpful. As Iris Martinez and Dava Grayson indicate in Chapter II:

> Certain general principles for providing instruction . . . acquired through experience by people who work with blind children and adults, have been successfully utilized. First, con-

Figure 2. Field losses often make seeing all of something difficult. The bottom photo approximates how a youngster with a left hemianopsia (blindness in half the visual field) would see the Alice in Wonderland play environment in the top photo.

sulting with the child, a low vision specialist, a special teacher, and/or parent will help to determine what the child can see, the age of onset of the visual condition (determining whether the child has the ability to visualize), and how the condition may have affected concept and skill development. It is also helpful to know if low vision aids are recommended.

Peer Acceptance

One fear the administrator may have is that bringing a visually impaired youngster into an ongoing program—with or without adapting the activities—may lessen the fun for sighted youngsters or disturb them. There is even the thought that prejudice or other factors may drive sighted youngsters from the activity altogether.

Experience indicates the contrary. "Inclusion of the visually impaired into our programs," says Detroit's Robert VanDeventer, "did not affect participation of other children in activities to any noticeable degree. Often we found the opposite to occur when many youngsters were anxious to assist."

Does a visually impaired participant make it less fun for the others? Says Robert Toalson, "The results generally reflect the attitude of the leader. Depending on whether the leader is positive or negative about it, the kids are positive or negative."

While the choice of a staff member to supervise the activity is important to the visually impaired participant's acceptance, there are several other factors involved as well. When a visually impaired youngster is about to join a program, it is a good idea to discuss with the group the nature of his impairment, the type of problems he may have, making it clear that there may be some inconveniences for the other children and that the visually impaired child may need some extra attention. The children's questions should be answered and an effort made to enlist their understanding and cooperation.

Group acceptance provides an added benefit. While it is likely that even under the best of circumstances—especially at the outset—the visually impaired child will require more supervision than most of the other youngsters, acceptance by his peers will decrease the amount of supervision that must come from recreation staff.

As for the newcomer himself, briefing can be minimal, with most instruction taking place within the regular program structure either before, during, or after the activity. This procedure also gives the other youngsters an opportunity to become aware of the new participant and to get used to his presence.

There is one other factor that can help in the successful integration of the visually impaired youngster: matching the youngster to the activity, not only in relation to such problems as may be posed by limited vision, but in relation to the type or category of activity itself. Studies have shown that the nature of an activity and its structure help considerably to determine how well disabled individuals are accepted (Johnson and Johnson, 1980). The administrator can help the visually impaired youngster by placing him in a cooperative activity rather than in one which is competitive or individualistic. This is because cooperative activities such as cooking, rowing, dramatics, chorus, story-telling, and square dancing offer a greater likelihood of acceptance, than do such competitive activities such as card-playing, ping-pong, racing, many table games, and even musical chairs; or individualistic activities such as arts and crafts.

Because most sizable recreation programs are likely to have all three types of activities, it is worth emphasizing that it is the positive, cooperative experiences that communicate friendly feelings which are generalized toward other group members, a sense of shared interests and camaraderie, which extends to others in the group, including the visually impaired child. If initial contacts are competitive or individualistic, however, any tendency the sighted youngsters have to confirm pre-

viously held attitudes and stereotypes may only be strengthened. At best this may lead to ignoring the visually impaired youngster; at worst, such feelings may disrupt an activity and lead to bad feeling.

However, this is not to imply that visually impaired youngsters should never be involved in competitive and/or individualistic activities, but only that bringing them into cooperative activities first may lead to a more ready acceptance by the others in the program and give the newcomer a better chance to demonstrate his confidence and skills.

Safety

While safety is an extremely important factor, in most cases, the normal precautions taken for sighted children, particularly the very young, are also sufficient for those who have visual impairments. The converse is also true: When something proves unsafe for visually impaired younsters, it usually turns out that it has been unsafe for other boys and girls all along. In one instance, for example, when a resource person from an agency for the blind was brought in to examine the safety aspects of a playground area for visually impaired youngsters, he was horrified to find swings, seesaws, and slides jammed so closely together as to virtually guarantee an accident.

Joseph Curtis relates, from his Boston experience, "When they opened a new pool—and very proudly—the pool entry was located at the deep-water end. Within a short time a visually impaired youngster who had not been oriented to the pool geography walked in and straight into the water—something which any child might well have done. The child was unharmed, and the remedy was simple: all it took was the installation of a small rail at poolside as a guide."

Most such hazards can be eliminated through study and planning, either with the

Figure 3. This arrangement of play equipment could create hazards for sighted as well as blind tots.

Figure 4. Benches and other outdoor furniture can be hazardous if they are placed at random.

Figure 5. Many tents have flaps along the ground at the entrance. Blind youngsters must be alerted to potential hazards such as this.

Figure 6. Low branches, odd plants, can be hazardous in hiking areas.

Figure 7. Fences will protect visually impaired youngsters from sudden and dangerous drops, ravines, etc.

help of an outside resource person, or by the recreation staff, but more often than not administrators are likely to be too cautious—to the detriment of the visually impaired youngsters they are trying to serve. The truth is that many visually impaired children—and particularly those who are most likely to participate in recreation programs—have learned to function quite well with their impairment, using their other senses to process information in ways that allow for a great deal of self-reliance and independence. Each youngster should be assessed on his own, but overprotection of youngsters with visual impairments is generally both unnecessary and undesirable. Like other youngsters, the visually impaired child should be permitted the opportunity to acquire his fair share of bumps, cuts and bruises.

This does not mean that certain obvious safety precautions should not be taken, particularly in such areas as hiking on potentially dangerous trails, activities with fast-moving equipment, or work with sharp tools; but precautions need not be overly elaborate—in some cases a guard rail on a trail is necessary; in others, simply pairing the visually impaired youngster with a trained sighted guide may be sufficient and the activity will still be fun and challenging.

Totally blind youngsters can learn to use sports and play equipment without harm or injury, with some extra time and patience. Hundreds of youngsters with limited vision participate safely in recreation activities throughout the country. According to a report by Professor Tim Nugent, director of rehabilitation programs at the University of Illinois, disabled students have no higher incidence of accidents while participating in active sports and recreation than do other students. (This, incidentally, corroborates employment statistics, which show no greater accident rate for disabled workers than for the non-disabled.) In certain activities, as noted, some additional supervision may be required for visually impaired children but how much depends largely on the nature of the activity and the skill and competence level of the participants.

If the recreation leader has any question concerning the potential hazards of a specific activity for a particular child, the parents should be informed and consulted. The staff person can indicate what the hazards might be and how they are being dealt with. Parents, child, and recreation specialist can discuss the situation realistically. It is also recommended that before introducing the youngster into the recreation program, a check for safety hazards be made.

Environmental Modifications

One of the first steps in planning to bring a visually impaired youngster into a recreation program, related to some degree to the problem of safety, is to determine whether the facilities or general environment will require any modification.

For children with other types of disabilities, the problem might basically be one of access, e.g., widening doors and/or constructing ramps. For visually impaired youngsters, however, no such major adapatations are likely to be needed, though minor adjustments, such as using a textured tape to indicate the edges of steps, might be helpful.

For the most part, visually impaired children learn to adapt to the environment through training in orientation and mobility rather than requiring that the environment be modified for them. As discussed in Chapter III, "orientation" refers to the "knowledge of one's position in space at any given moment in time;" "mobility" is "safe, graceful, and efficient movement through the environment."

Before the visually impaired youngster begins to participate actively in the program, a special orientation to the recreation setting should be provided. Says Champaign's Robert Toalson, "Our staff found that it is very helpful to orient the visually

impaired camper ahead of time to the daycamp setting. A 'talk-through, walk-through' tour enables the camper not to be totally dependent upon a counselor." Quoting again from Chapter III, "A well oriented visually impaired child will have greater independence and be able to enjoy and participate more fully in recreation activities."

Not all visually impaired youngsters require the same degree of orientation or the same amount of mobility training, nor will they need the same amount of preparation for the program. In many cases, simply walking the youngster through the facility and describing the placement of rooms, doorways, and equipment is sufficient; after that, it is a matter of practice and increasing familiarity.

Although outdoor facilities, including playgrounds, pose special problems, it usually surprises sighted observers to see how well a visually impaired youngster manages on walkways and trails, provided they are cleared of unexpected obstacles, i.e., those which were not there yesterday, like fallen branches or stones. This does not mean that no environmental modification is ever needed, but it may be only a simple adaptation such as a guide-rope to mark a trail, rather than any permanent construct. Again, it must be emphasized that it is important not to underestimate a child's capabilities or what the youngster can do. It is important for the recreation specialist to take time to observe the youngster in action.

While the recreation administrator or even staff members directly involved with the visually impaired child need not become experts in orientation and mobility, as Monica Beliveau and Judith Rutberg indicate in Chapter III, it is beneficial "to know something about the principles and techniques. . . .[His job] will be made much easier if he is familiar with the basic concepts." This is an area in which a resource person from the local agency for blind and visually impaired persons should be

Figure 8. Tactual indicator for guidestrip.

Figure 9. Underside of stairs as a travel hazard.

Figure 10. Color contrast to show step-down.

Figure 11. Wall-mounted ashtrays as travel hazards.

Figure 12. Overhanging shrubbery as a travel hazard.

brought in. If no resource person is available, however, the child's parents may be sufficiently knowledgeable to teach the staff person enough about the orientation and mobility process to orient the child to program activities. To quote again from Chapter III, "While the specialist in recreation by no means has responsibility for developing the child's overall orientation and mobility skills, knowledge of and attention to those areas permit him to concentrate more effectively on recreation planning."

Liability and Insurance

"Along with the growth of public recreation," according to Albert M. Farina, (*Parks and Recreation*, March, 1979) "has been the growth of administrative worry over liability for accidents." It is a legitimate concern, of course, but carried to the extreme, "this worry furnishes local authorities with a ready-made excuse not to establish a recreation program," when the real remedy might be simply "to develop safer recreation programs."

If the problem of liability is no excuse for not having community recreation programs, neither is it an excuse for excluding visually impaired or other disabled children from the programs. Nevertheless, the administrator should consult his broker or insurance carrier and possibly the program's attorneys as well regarding insurance and liability. However, based on the experiences of others, the participation of visually impaired youngsters may have no effect on insurance costs.

As a matter of policy, parents of visually impaired children should be asked to sign standard release forms although this does not legally absolve the recreation program or the community of responsibility. If safety standards are maintained, if the preparations, including the orientation of the visually impaired child, have been properly handled, the youngster should be exposed to no greater risks than any child participating in the program.

"Certainly, liability is a fact of life," says Albert Farina, but it does not keep "normal" youngsters out of swimming-pools and playgrounds. Nor should it be a reason for keeping visually impaired children out.

One of the factors which can help in the integration of visually impaired youngsters into recreation activities, especially ongoing activities, is the right kind of staff person, someone who has had experience or training in working with visually impaired children. Knowing something about what to expect, some previous seasoning in dealing with difficulties which cannot all be spelled out in advance, is good preparation not only for dealing with the unusual but also for normal daily activities.

As Iris Martinez and Dava Grayson put it in Chapter II, "The recreation specialist should have the competence and the confidence to make the necessary modifications in recreation activities when these adaptations are required to meet the individual needs of children." Confidence is one of the important personal qualities to be sought in the staff person but others should be considered as well. Particularly when dealing with disabled children qualities like patience, the ability to remain unflustered, the ability to relate to people warmly, and maturity are very important, as is readiness to take on the task. If there is a choice among staff people, it is best not to choose someone who is reluctant, frightened, or uncomfortable relating to disabled persons. Competence, based upon appropriate training, is also extremely important.

Inservice Training

The key to a successful integration may be staff training. The recreation specialist who works with a visually impaired child is not required to be a therapist: The basic rationale for bringing a visually impaired boy or girl into general, rather

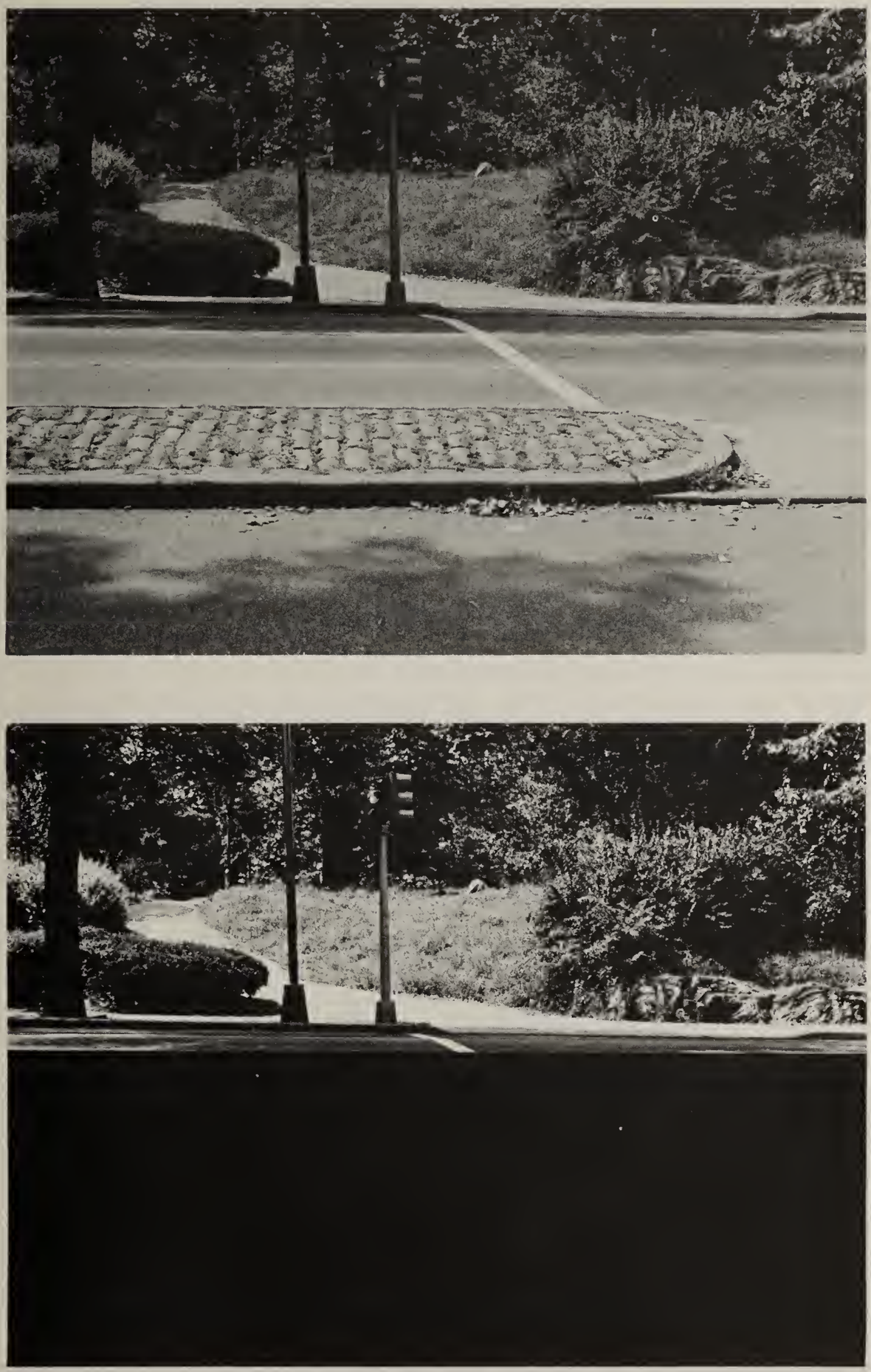

Figure 13. Staff should be alert to the difficulties visual field losses can create. The bottom photo approximates how a youngster with an inferior field loss would see the crossing shown in the top photo.

than specialized, programs is fun, not therapy. However, the recreation specialist must have the skill to ensure that the child has a positive recreational experience in a safe environment.

Even the recreation specialist who is asked to work with youngsters in transitional programs—those making the move from specialized programs, or no programs, into the mainstream—need not be a therapist, nor an expert on visual problems, but only someone with the needed recreation skills.

Yet a certain amount of training in adapting skills to the requirements of visually impaired children will be necessary. The training can be relatively informal and may even take place on a one-to-one basis.

In a community program, however, particularly if the program is large and the potential population of visually impaired children is sizable, a more structured inservice training program for larger number of recreation specialists may be indicated. Participants in the inservice training sessions may include program administrators; community program supervisors; community recreation specialists who plan, organize, and lead activities; and the para-professionals or volunteers who assist the recreation staff. Obviously, the amount of training provided will depend on the amount of information to be learned, the time available, and the previous experience of the staff. There can be one, or several, or a series of training sessions, as needed.

The person planning the inservice training sessions can usually count on obtaining assistance from experts in the field of visual impairment, either from the state office for the visually impaired, universities, or schools and agencies serving blind children and adults. Specialists in orientation and mobility, therapeutic recreation, special education, low vision, and rehabilitation can provide training and resource information to recreation staff. If there is a residential school for blind children in the area, its recreation staff might be an especially valuable resource. Visually impaired adults and the parents of visually impaired children, whether or not those children are participating in the program, can also offer useful insights and guidance.

Goals of the training program should include the following:

1. To promote positive staff attitudes toward working with visually impaired children. The program should present a realistic view of visual impairment and help staff people to rid themselves of misconceptions—and of negative feelings—that might otherwise affect their working successfully with the visually impaired youngster.
2. To assist recreation specialists to understand what visually impaired children can and cannot see, and how this affects their functioning. A knowledge of the various kinds of visual impairment commonly found in children will help to assess the varying abilities of individual children and to take account of them in program planning.
3. To help staff to include visually impaired children in activities by providing them with an orientation to facilities, activities, and equipment. Staff people should also have a basic knowledge of safety considerations appropriate for children with little or no vision.
4. To demonstrate and teach the modified and/or adapted techniques that may be needed in involving visually impaired youngsters in specific recreation activities.

Among the special materials that might be useful in the training workshop are such equipment as simulators, lenses which simulate loss of visual acuity and field vision; and occludors, masks which block all light, simulating total blindness. (Because the wearers know they will soon be coming off, these can provide no more than an approximate indication of what it is really like to have a visual impairment.) The simulators and occludors are most effective when the wearers are engaged in some form of movement (walking, running), or activity (crafts, active games, dancing)

Figure 14. Some environments are more difficult for a visually impaired youngster to see than others. The bottom photo approximates how a child with 20/800 visual acuity would see what is shown in the top photo.

related to a typical day in a recreation program. The occludors are also a good device for teaching sighted guide techniques.

The workshop should also include demonstrations of the adapted games and equipment that will be used with visually impaired children. A useful exercise is having workshop participants play board games by touch alone.

Training at the Smithsonian

An example of successful, off-the-premises inservice training is that of the Smithsonian Institution in Washington, D.C. which provides yearly sessions on disabling conditions for museum curators and staff from all parts of the country. Because blind people are often discouraged from entering museums, the inservice sessions emphasized attitudes toward blindness and an understanding of the effects of visual impairment. Use of volunteers is suggested as a way to assist the visually impaired child or adult who comes to the museum on his own. Museums are also encouraged to develop haptic—touchable—exhibits for all visitors, and especially for visually impaired individuals.

One museum that participated in the Smithsonian inservice sessions was the Plymouth Plantation in Plymouth, Massachusetts, a replica of the early Pilgrim settlement. Prior to their sessions at the Smithsonian, the administrators and staff of Plymouth Plantation had qualms about letting visually impaired children take part in many of the events at the museum. After the training, however, they gave blind youngsters the same opportunity as sighted children to participate in such activities as thatching roofs and milking cows.

Volunteers

In recreation programs throughout the country, volunteers are increasingly playing a variety of roles. The Smithsonian program suggests that they be enlisted to supplement the efforts of recreation staff. Some volunteers even serve as members of department or program advisory boards, providing counsel on policy-making decisions or taking the lead in fundraising efforts. These are not the well-meaning but largely decorative "amateurs" of yesteryear. By involving the new volunteers in the program planning process and giving them a thorough orientation to program philosophy and goals, administrators are creating major assets to their programs.

In terms of bringing visually impaired youngsters into the recreation program, volunteers may often be the "missing piece" that makes the whole project practicable. They are a major reason why budget-conscious administrators report that they are able to hold aditional expenditures to a minimum. "Any additional requirements for staffing," says Robert Toalson, "were met by the use of volunteers."

While they may be sought out initially for their dollars-and-cents value, volunteers often bring a special commitment to working with visually impaired children. Another advantage is that they can almost immediately be involved functionally in the program under the supervision of recreation specialists.

Not every potential volunteer, however, is suited to the tasks of working with a visually impaired child. Administrators may find that a certain amount of screening is required to find volunteers with enough understanding to allow the visually impaired boy or girl to experience frustration and learn to deal with it, and enough patience to accept the fact that a visually limited youngster may take somewhat longer than seems appropriate to complete a task. Volunteers often need to be reminded not to assist a visually impaired youngster too much, to the point where the child's desire for independence is thwarted.

If it is not possible for volunteers to attend the inservice training programs held for staff, special inservice sessions should be set up for them, particularly for those

Figure 15. Even with visual acuity of just 20/800 a horse is easily recognized.

working directly with the youngsters. This training is critical for them and can readily be provided by staff people who have already completed their own inservice training. It need not always be on the formal level: a staff person working with a volunteer can take advantage of the "teachable moment"—and make the lesson even more effective.

Working with Parents

Working with parents of a visually impaired child, whether the parent is a volunteer in the recreation program or merely concerned about his child's participation, often requires a special understanding. As Beverly Z. Hummel and Jean L. Kelley indicate in Chapter V, "Most recreation specialists are able to interact with parents competently and comfortably. However, relating to parents of disabled children may be a new experience. [These parents] . . . have struggled with [certain] additional dimensions of parenthood. . . . If the recreation specialist can understand what it is like to be the parent of a disabled child, he will find it easier to interact with parents of visually impaired children in his program."

It is important for the recreation staff to establish good and cooperative relationships with parents. To quote again from Chapter V, "For most recreation personnel, contact is brief with parents, and in some cases indirect or nonexistent. Contrary to this norm, the recreation specialist who works with disabled children is likely to have frequent contact with parents. . . . When working with the visually impaired child . . . effective communication and interaction with parents are essential."

The relationship between the recreation administrator and the parents of visually impaired children is very important in maintaining a successsful community program, if only because his attitudes and actions provide a model for other recreation personnel. His understanding of the parents' unique attitudes and experiences, their expectations and past frustrations, is important in building a good relationship and in working toward common goals.

It is important to recall that in the past parents of visually impaired and other disabled children have all too often had to take the initiative in obtaining appropriate recreation opportunities for their children, and even then they have not always been welcomed with open arms. The administrator who takes the first step in reaching out to such parents, who makes them welcome when they arrive, who seeks to involve them actively in his programs, may find them assets in a surprising number of ways.

Contact may take place between recreation personnel and parents both on an individual basis and through the parents' involvement with advisory committees, where their ideas and suggestions can provide important guidance. If special groups for parents of visually impaired children exist in the community, meeting with them can also be of value to program development efforts. Moreover, parents acting as advocates for additional funding—it is a role with which most of them have become familiar—can have a tremendous impact on the success of a recreation program.

Because of their concern for the welfare of their children—and their experience with "working the system"—parents of visually impaired youngsters can be a force for positive change in a program. For example, the Buffalo Community Music School in Buffalo, New York, had no program in which visually impaired children could study music. As a result of requests from the parents of visually impaired children, as well as the Buffalo Association for the Blind, the music school contacted the New York Association for the Blind in New York City and asked for assistance in setting up such a program.

Four staff members from Buffalo were then invited to attend an intensive three-

day workshop in New York City, one of the features of which was observing visually impaired students as they were taking their lessons. (Funding for the trip, it is worth noting, had been obtained by the Buffalo school from a private foundation.) As a result, more than 25 visually impaired children and adults were subsequently able to enroll in the Buffalo music program.

The administrator who is able to establish a rapport with the parents of one visually impaired youngster is likely to find them helpful in dealing with the parents of other such children. At the time of earliest contact with new families, the parent of a visually impaired child is often the best person to allay another parent's fears regarding a child's participation in recreation activities. Parents are an excellent resource for reaching out to other parents of visually impaired children who may not be aware of the new doors which have been opened for them.

Evaluation

Many communities, many recreation programs, many administrators did not wait for legal mandates or parental pressures to open their doors to visually impaired and other disabled children. The city of Detroit is typical of many. "Our Recreation Department," says Robert VanDeventer, "integrated visually impaired children into our regular camping program in the mid-1960s. The recreation professionals in the Detroit Parks and Recreation Department, as we were known then, felt that growing trends in recreation services indicated a need in programming for special population groups, and we therefore expanded our activities to include handicapped and elderly citizens."

Why did the Champaign, Illinois, Park District bring visually impaired children into its programs? Says Robert Toalson, "I asked the director of our special programs this question and her response was, 'Because they are citizens. Why would we exclude them?' I think her statement says it all."

When the time comes for the recreation administrator to evaluate the accomplishments of the effort to include visually impaired children in recreation activities with non-disabled children, there are a number of disparate factors which he may want to take into account. There are the possible benefits, at very little additional cost, to the program itself. An administrator may, for example, have found he has garnered much favorable publicity which has enhanced the standing of the recreation department. He may have had an impact on those in the community who establish budgets. Groups and individuals including volunteers, who were originally persuaded to support recreation activities on behalf of visually impaired youngsters, may have come to extend their championship to other innovative recreation efforts.

As far as evaluation solely in terms of what has been achieved with the visually impaired youngsters themselves, some judgments can be made on the basis of the child's individual assessment form and the activity evaluation form. However, there is also a more subjective method of evaluating what participation in the program has meant to a youngster. Chapter V notes that parents of blind and visually impaired children "have the same hopes and dreams for their child as any other parent," and that "the recreation specialist has the opportunity to help them achieve their goals."

By offering the youngster acceptance, by giving him an opportunity to take risks and to achieve successes no matter how small, by helping the youngster toward the development of new confidence and an enhanced self-image, the administrator and the recreation program may have played a key role in the long process by which that youngster will one day achieve his own goals. The personal reward for the administrator cannot be underestimated.

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CHAPTER 7

Resources—How to Locate and Use Them

The recreation specialist involved in programming for visually impaired children will sometimes find it necessary or advisable to seek out additional resources. He may, for example, wish to direct a parent to a national organization that can help with a particular problem, contact an advocacy group for guidance and support, or obtain information to conduct a staff training session. Being familiar with the major resources not only saves time but increases effectiveness in obtaining the best possible information for solving a problem.

While it is not feasible to identify all resources that might be utilized under all circumstances, those that are likely to be needed most frequently are presented here.

Organizations, institutions, and agencies serving children and adults with visual and related handicaps have been divided into the following groups: national organizations serving the visually impaired, state and regional resources, federal resources, national organizations serving related needs and handicaps, local resources, and recreational resources. The remainder of the chapter contains information on recreational products, low vision resources, large print resources, selected periodicals, directories, information services, and resources available from the American Foundation for the Blind.

In most cases, the recreation specialist seeking information on blindness will want to contact the local resource that is readily available. However, appropriate resources may not always exist at the local level. Different problems may demand different kinds of resources. If the specialist is uncertain as to the appropriateness of a resource, the national office of the American Foundation for the Blind or one of its regional offices can help by screening the requirement.

Low vision clinics give eye examinations, prescribe low vision aids, and offer instruction on how to use the aid; mental health clinics provide individual counseling to those who are in need of support and guidance; and family service organizations provide a variety of support services as well as counseling and referral to appropriate resources.

NATIONAL ORGANIZATIONS SERVING THE VISUALLY IMPAIRED

When a national organization has local or regional offices, initial contact should usually be made through the office nearest you.

American Association of Workers for the Blind, Inc. (1511 K Street, N.W., Washington, D.C. 20005). A national membership organization serving both professional and laymen interested in promoting, developing, and improving services to visually impaired people. Conducts international and regional meetings

and publishes *Blindness*, an annual on the issues related to the development of services to visually impaired people.

American Council of the Blind, Inc. (1211 Connecticut Avenue, N.W., Suite 506, Washington, D.C. 20036). Provides referral services, a tape library, and consultative and advisory services in areas of legislation, litigation, credit unions, and state programs; publishes *The Braille Forum.*

American Foundation for the Blind, Inc. (15 West 16th Street, New York, New York 10011). Promotes the development of educational, rehabilitation and social services for visually impaired people. Responds to inquiries from blind people and their families. Conducts workshops and training courses for schools and agencies; maintains a library on blindness open to the public; sells at cost a wide range of equipment aimed at helping the blind person to become more independent. Records and manufactures talking books (under contract to the Library of Congress); promotes research; provides consulting services; and publishes a wide variety of material for the public, the visually impaired person, and the professional, including the *Journal of Visual Impairment and Blindness, Products for People with Vision Problems,* and *Directory of Agencies Serving the Visually Handicapped.*

American Printing House for the Blind, Inc. (1839 Frankfort Avenue, P.O. Box 6085, Louisville, Kentucky 40206). Provides braille and recorded materials for all visually impaired students attending educational institutions of less than college grade. Also provides educational aids; publishes braille books and magazines and large-type textbooks. Conducts educational research and develops new educational methods and aids.

Association for Education of Visually Handicapped. (919 Walnut Street, Philadelphia, Pennsylvania 19107). (Formerly the American Association of Instructors for the Blind). A membership organization serving professionals concerned with the education, guidance, and vocational rehabilitation and placement of visually impaired people.

Eye Bank Association of America, Inc. (3195 Maplewood Avenue, Winston-Salem, North Carolina 27103). Supplies corneas, scleras, and vitreous from any one of its 60 eye banks located throughout the country to members of the medical profession for the purpose of sight restoration.

Hadley Correspondence School for the Blind. (700 Elm Street, Winnetka, Illinois 60093). Provides free academic and vocational courses, a standard high school program and high school equivalency, liberal arts, and commercial arts, as well as library services.

HEALTH Sports. (1455 West Lake Street, Minneapolis, Minnesota 55408). (Formerly called Ski for Light.) Offers downhill and cross-country skiing programs for visually impaired persons. Also offers a one-week program of intensive training in health sports and health promotion for the visually impaired.

National Association for Parents of Visually Impaired. (2011 Hardy Circle, Austin, Texas 78757). A member organization for parents and agencies committed to providing support to parents and families of visually impaired children and youth. Promotes public understanding of the needs and rights of the visually impaired child and youth; development of state and local parents' groups; workshops that educate and train parents in service potential and their children's rights.

Establishment of a national clearinghouse for information, education and referral by identifying the resources available. Fosters formal and informal communication and communication among federal, state and local agencies which provide service or funding for service to visually impaired children and youth.

National Association for Visually Handicapped, Inc. (305 East 24th Street, New York, New York 10010). (Formerly called National Aid to Visually Handicapped.) Produces and distributes large-type (18 point) reading materials to schools, libraries, senior citizen centers, and individuals. Provides discussion groups for families of partially seeing children and conducts recreational and educational programs for partially seeing children and teenagers.

National Accreditation Council for Agencies Serving the Blind and Visually Handicapped. (79 Madison Avenue, New York, New York 10016). Provides a method of self-evaluation to rehabilitation facilities, educational programs, and training establishments offering services to blind and visually handicapped persons. Conducts reviews of establishments upon completion of self-study guides and provides accreditation to qualifying programs. Publishes standards on "Social Work and Leisure and Recreation Services: Section D-5."

National Center for Deaf-Blind Youths and Adults. Helen Keller. (111 Middle Neck Road, Sands Point, New York 11050). Provides rehabilitation, recreation, and employment training; conducts research; and offers professional and technical training in the field of service to deaf-blind persons. Responds to inquiries on a national basis through regional field representatives.

National Federation of the Blind. (1800 Johnson Street, Baltimore, Maryland 21230). A membership organization for blind individuals and their families to improve social and economic conditions for blind people. Assists in the development of new programs and grants scholarships to visually impaired people for education, etc. Publishes a monthly magazine, *The Braille Monitor.*

National Retinitis Pigmentosa Foundation. (8331 Mindale Circle, Baltimore, Maryland 21207). Conducts educational programs for the public, promotes the prevention of retinitis pigmentosa and related diseases through research award grants, and asssists families and individuals with retinitis pigmentosa in understanding the disorder and locating appropriate rehabilitation resources.

National Society to Prevent Blindness. (79 Madison Avenue, New York, New York 10016). Conducts research on causes of blindness and compiles data and statistics on the blind population. Provides community vision screening, glaucoma detection, and educational information on industrial and school eye safety. Provides general education to professionals in health and education, including institutional and inservice training programs. Publishes pamphlets, reports, and quarterly publications for both laymen and professionals on visual impairment and its prevention.

Recording for the Blind, Inc. (215 East 58th Street, New York, New York 10022). Lends taped educational books at no charge to visually and physically handicapped students. Materials may also be requested for professional and vocational purposes.

U.S. Association for Blind Athletes. (55 West California Avenue, Beach Haven Park, New Jersey 08008). A private, nonprofit membership agency concerned with recreation (swimming, track, wrestling, gymnastics, goal ball, skiing, and skating), professional training, and development of city, state, and regional chapters of USABA. Publishes *Athletic Handbook, National Competition Program Book,* and *Newsletter.*

STATE AND REGIONAL RESOURCES

State Resources

Commission (Board) for Crippled Children, State. Provides medical services to handicapped children under the age of 21, including diagnostic evaluation, help in locating treatment facilities, arranging and, in some instances, offering financial assistance for temporary convalescent or foster home care. For more detailed information contact the local State Commission or Board for Programs for Handicapped Children.

State Agency for the Blind/Visually Handicapped. A major resource and referral agent for all services related to the needs of the visually impaired individual over the age of 16. Conducts or arranges for vision screening, family or individual counseling, and general vocational and other rehabilitation services, including home teaching. May also assist the homemaker with special equipment for independent functioning. In some states there are local offices.

Social Services, Department of. Supervises a wide range of services such as public assistance, medical assistance, Food Stamps, and services to adults and children. Operates Bureau of Registry and Location of Deserting Parents, processes claims for disability benefits under the Social Security Act, and establishes and maintains contact with community and voluntary organizations regarding administration of public services. May provide counseling services, health and medical services, low vision aids, volunteer programs, and consumer advocacy. For information contact the State Office of Social Services.

Department of Education. Houses state consultants on vision. May provide consultation to schools, agencies, and individuals.

Vocational Rehabilitation Administration, State. Provides a range of services similar to those offered by the Commission for the Visually Handicapped to partially sighted individuals, usually excluding the legally blind.

Not every state has a residential school for visually impaired children; where these schools do exist, staff can be a most helpful resource.

RESIDENTIAL SCHOOLS FOR BLIND CHILDREN

From *American Foundation for the Blind Directory of Agencies Serving the Visually Handicapped in the United States*, 21st Edition, 1981.

Alabama
Alabama Institute for Deaf and Blind
South Street, P.O. Box 698
Talladega, 35160
Principal
(205) 362-1500

Arizona
Arizona State School for the Deaf and the Blind
P.O. Box 5545
Tucson, 85703
Director
(602) 882-5357

Arkansas
Arkansas School for the Blind
2600 West Markham Street
Little Rock, 77203
Superintendent
(501) 663-4185

California
California School for the Blind
500 Walnut Street
Fremont, 94536
Superintendent
(415) 794-3800

Colorado Colorado School for the Deaf and the Blind
Kiowa & Institute Streets
Colorado Springs, 80903
Principal
(303) 636-5186

Connecticut

Oak Hill School
Connecticut Institute for the Blind
120 Holcomb Street
Hartford, 06112
Superintendent
(203) 242-2274

Florida Florida School for the Deaf and the Blind
P.O. Box 1209
St. Augustine, 32304
Principal
(904) 824-1654

Georgia Georgia Academy for the Blind
2895 Vineville Avenue
Macon, 31204
Superintendent
(912) 744-6083

Hawaii Hawaii School for the Deaf and the Blind
3440 Leahi Avenue
Honolulu, 96815
Principal
(808) 734-0297

Idaho Idaho State School for the Deaf and Blind
202 14th Avenue East
Gooding, 83330
Superintendent
(208) 934-4457

Illinois The Hope School for Blind Multiple Handicapped
50 Hazel Lane
Springfield, 62703
Director
(217) 786-3350

Illinois School for the Visually Impaired
658 East State Street
Jacksonville, 62650
Superintendent
(217) 245-4101

Indiana Indiana School for the Blind
7725 North College Avenue
Indianapolis, 46240
Superintendent
(317) 253-1481

Iowa Iowa Braille and Sight Saving School
1002 G Avenue
Vinton, 52349
Superintendent
(319) 472-5221

Kansas Kansas State School for the Visually Handicapped
1100 State Avenue
Kansas City, 66102
Superintendent
(913) 281-3308

Kentucky Kentucky School for the Blind
1867 Frankfort Avenue
P.O. Box 6005
Louisville, 40206
Superintendent
(502) 897-1583

Louisiana Louisiana School for the Visually Impaired
1120 Government Street
Baton Rouge, 70802
Superintendent
(504) 342-4757

Maryland Maryland School for the Blind
3501 Taylor Avenue
Baltimore, 21236
Superintendent
(301) 444-5000

Massachusetts

Perkins School for the Blind
Watertown, 02172
Director
(617) 924-3434

Massachusetts

Walter E. Fernald State School
P.O. Box 158
Belmont, 02178
Superintendent
(617) 894-3600

Michigan Michigan School for the Blind
715 West Willow Street
Lansing, 48913
Superintendent
(517) 373-3730

Minnesota Minnesota Braille & Sight Saving School
Highway 298
Faribault, 55021
Superintendent
(507) 332-3226

Mississippi Mississippi School for the Blind
1252 Eastover Drive
Jackson, 39211
Superintendent
(601) 366-1863

Missouri Missouri School for the Blind
3815 Magnolia Avenue
St. Louis, 63110
Superintendent
(314) 776-4320

Montana Montana School for the Deaf and Blind
3911 Central Avenue
Great Falls, 59401
Superintendent
(406) 453-1401

Nebraska Nebraska School for the Visually Handicapped
824 Tenth Avenue,
P.O. Box 129
Nebraska City, 68410
Superintendent
(402) 873-5513

New Jersey St. Joseph's School for the Blind
(private, parochial)
253 Baldwin Avenue
Jersey City, 07306
Administrator
(201) 653-0578

Matheny School
Main Street
Peapack, 07977
Director
(201) 234-0011

New Mexico New Mexico School for the Visually Handicapped
1900 North White Sands Blvd.
Alamogordo, 88310
Superintendent
(505) 437-3505

New York Lavelle School for the Blind
East 221 Street & Paulding Avenue
Bronx, 10469
Executive Director
(212) 882-1212

New York Institute for the Education of the Blind
999 Pelham Parkway
New York, 10469
Director
(212) 547-1234

New York State School for the Blind
Richmond Avenue
Batavia, 14020
Principal
(716) 343-5384

North Carolina

The Governor Morehead School
301 Ashe Avenue
Raleigh, 27606
Principal
(919) 834-2579

North Dakota

North Dakota School for the Blind
500 Stanford Road
Grand Forks, 58201
Superintendent
(701) 781-4144

Ohio

Ohio State School for the Blind
5220 North High Street
Columbus, 43214
Superintendent
(614) 888-1154

Oklahoma

Parkview School of Oklahoma School for the Blind
3300 Gibson Street
Mailing Address: P.O. Box 309
Muskogee, 74401
Superintendent
(918) 682-6641

Oregon

Oregon State School for the Blind
700 Church Street S.E.
Salem, 97310
Director
(503) 378-3820

Pennsylvania

Overbrook School for the Blind
64th Street & Malvern Avenue
Philadelphia, 19151
Director
(215) 877-0313

Royer-Greaves School for the Blind
118 South Valley Road
Paoli, 19301
Executive Director
(215) 644-1810

Western Pennsylvania School for Blind Children
201 North Bellefield Street
Pittsburgh, 15213
Executive Director
(412) 621-0100

Puerto Rico

Instituto Loaiza Cordero para Ninos Ciegos
Fernandez Juncos 1312
Santurce, 00910
Director
(809) 724-0893

South Carolina

South Carolina School for the Deaf and Blind
Cedar Spring Station
Spartanburg, 29302
Principal
(803) 585-7711

South Dakota

South Dakota School for the Visually Handicapped
422 South East 17th Avenue
Aberdeen, 57401
Superintendent
(605) 622-2580

Tennessee

Tennessee School for the Blind
115 Stewarts Ferry Pike
Nashville, 37214
Superintendent
(615) 741-4431

Texas

Texas School for the Blind
1100 West 45th Street
Austin, 78756
Superintendent
(512) 454-8631

Utah

Utah School for the Blind
742 Harrison Blvd.
Ogden, 84404
Principal
(801) 399-5635

Virginia

Virginia School for the Deaf and Blind at Hampton
700 Shell Road
Hampton, 23661
Superintendent
(804) 247-2075

Virginia

Virginia School for the Deaf and Blind
Staunton, 24401
Superintendent
(703) 885-9533

Washington

Washington State School for the Blind
P.O. Box 1865
Vancouver, 98663
Superintendent
(206) 696-6630

West Virginia

West Virginia School for the Deaf and Blind
Romney, 26757
Superintendent
(304) 822-5521

Wisconsin

Wisconsin School for the Visually Handicapped
1700 West State Street
Janesville, 53545
Superintendent
(608) 755-2950

FEDERAL RESOURCES

Civil Rights, Office of. (Office of New Programs, 330 C Street, S.W., Washington, D.C. 20201). Discrimination because of disability is prohibited in programs and activities receiving financial aid from the federal government. Any handicapped person who believes he has been denied services from or participation in any program or activity receiving federal funds or who has any question related to civil rights should contact this office.

Consumer Affairs Department. 330 C Street, S.W., Washington, D.C. 20201). Complaints regarding consumer products or services can be forwarded to this department. (Many cities also have Departments of Consumer Affairs or Offices of Consumer Complaints.)

Consumer Product Safety Commission. (Bureau of Information and Education, 1111 18th Street, N.W., Washington, D.C. 20207). Provides information on packaging unsafe for children or difficult to open by an older or handicapped person, and on prescribed medication containers that can be opened by a handicapped individual.

Handicapped Individuals, Office for. (Office of Human Development, 200 Independence Avenue, S.W., Washington, D.C. 20201). Submits to Congress programs for comprehensive services for handicapped people and research evaluation and training related to these services. Programs include a Clearinghouse for the Handicapped, providing information on the handicapped to Congress, organizations, and the general public.

Library of Congress. (National Library Service for the Blind and Physically Handicapped, 1291 Taylor Street, N.W., Washington, D.C. 20542). Administers a national program providing free library service to any handicapped person who cannot hold, handle, or read standard print materials. Cooperating libraries provide braille and recorded books and magazines. (Discs are recorded at 16 and 8 rpm, cassettes at 1 $^{7}/_{8}$ and $^{15}/_{16}$ ips.) Special talking book machines and cassette players are also provided. To obtain application for free library service and the name of local cooperating library, write to the above address.

President's Committee on Employment of the Handicapped. (1111 20th Street, Vanguard Building, Room 660, Washington, D.C. 20036). National organization

established to promote employment opportunities for handicapped people. Has a Standing Committee on Recreation and Leisure involved in the promotion of employment opportunities for handicapped individuals in the park and recreation professions as well as the improvement of recreation programs and services for disabled populations.

Rehabilitation Services Administration. (330 C Street, S.W., Washington, D.C. 20201). The Rehabilitation Services Administration develops standards, methods, and procedures to assist state agencies (through the Office for the Blind and Visually Handicapped) in rehabilitation of blind people as well as other handicapped persons.

The Administration provides research grants, training programs, and materials; conducts studies and issues descriptions of occupations for blind individuals; promotes and assists states in the development of vocational programs and rehabilitation services; and provides funds for the expansion of services. This office administers the Randolph-Sheppard Act which gives visually handicapped individuals preference in operating vending stand vacilities on federal property.

Social Security, Administration of. (Apply at local Social Security Office). Social Security benefits include disability insurance. (Disability is defined as "an inability to engage in any substantial gainful activity because of a physical or mental impairment which may result in death or which has lasted or can be expected to continue for at least one year"). A blind person on a limited income may be eligible for Supplemental Security Income (SSI), which is not the same as Social Security although it is administered by the Social Security Administration. An individual receiving disability benefits or SSI is referred to his state vocational rehabilitation agency, where his need for rehabilitation services is evaluated.

Special Education and Rehabilitation, Office of. (Department of Education, Donohue Bldg., 6th and D St., S.W., Washington, D.C. 20202). Provides grants to the states for the education of handicapped children, administers the Education of the Handicapped Act, provides grants and scholarships for the training of personnel and research and demonstration grants, and funds special programs such as services for deaf-blind children. Provides information on these services and on state plans for education of handicapped children. (States receiving federal funds are required to set a goal of providing full educational opportunities to all handicapped children and to insure that these children are educated, whenever possible, with children who are not handicapped.)

Transportation, Department of. (Transportation Federal Railroad Administration, Office of Financial Assistance, 700 D Street, S.W., Washington, D.C. 20590). For information on special fares for handicapped persons, write to the above address or Amtrak.

NATIONAL ORGANIZATIONS SERVING RELATED NEEDS AND HANDICAPS

American Association on Mental Deficiency. (5101 Wisconsin Avenue, N.W., Washington, D.C. 20016). Provides national educational and informational seminars, contributes to the improvement of facilities serving the mentally retarded, and publishes two professional magazines, *Mental Retardation* and *American Journal of Mental Deficiency.*

American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD). (1900 Association Drive, Reston, Virginia 22091). Educational organization for the purpose of supporting, encouraging, and providing assistance to member groups and their personnel. Seeks to promote programs in health, leisure, and movement activities. A major component of service is IRUC (Information Retrival Utilization Center), which supplies information on services to the handicapped.

American Occupational Therapy Association. (6000 Executive Blvd., Suite 200, Rockville, Maryland 20852). Ensures quality services by establishing standards of performance; conducts research and study and disseminates information to the public about occupational therapy careers, programs, and services. Publishes *American Journal Of Occupational Therapy* and *Occupational Therapy.*

American Speech-Language-Hearing Association. (10801 Rockville Pike, Rockville, Maryland 20852). (Formerly American Speech and Hearing Association). Services include certification and accreditation of school and clinic programs and conducting of surveys and conferences. Publishes *Journal of Speech and Hearing Disorders* (quarterly), *Journal of Speech and Hearing Research* (quarterly), *Asha* (monthly), and *Language, Speech, and Hearing Services in Schools* (quarterly), as well as numerous pamphlets and guides.

Boy Scouts of America, Scouting for the Handicapped Division. (U.S. #1 and Highway 130, North Brunswick, New Jersey 08902). National, non-profit youth-serving voluntary associations concerned with the provision of educational and recreational experiences for children and youth. Special program opportunities are made available for handicapped children in integrated settings.

Camp Fire, Incorporated. (4601 Madison Avenue, Kansas City, Missouri 64112). (Formerly Campfire Girls). National, non-profit youth-serving voluntary associations concerned with the provision of educational and recreational experiences for children and youth. Special program opportunities are made available for handicapped children in integrated settings.

Cooperative Extension Service, 4-H Programs. (7100 Connecticut Ave. NW, Washington, D.C. 20015). National youth-serving organization sponsored by the U.S. Department of Agriculture. Provides informal educational programs to teach the skills of living in contemporary society through hands-on experiences. Provides program experiences for handicapped participants in an integrated setting.

Council for Exceptional Children. (1900 Association Drive, Reston, Virginia 22091). A private, non-profit membership organization the purpose of which is to advance the education of exceptional children and youth, both handicapped and gifted. Serves as an information resource service for teachers, administrators, students, parents and others.

Girl Scouts of the U.S.A. (830 Third Avenue, New York, N.Y. 10022). National, non-profit youth-serving voluntary associations concerned with the provision of educational and recreational experiences for children and youth. Special program opportunities are made available for handicapped children in integrated settings.

National Association for Hearing and Speech Action. (6110 Executive Blvd., Suite 1000, Rockville, Maryland 20852.) (Formerly National Association of Hearing and Speech Agencies.) Provides education and training for people with speech and

language disorders as well as public education and information services. Promotes legislation. Offers a wide selection of publications, including *Hearing and Speech News* and *Teaching Deaf Children.*

National Association for Retarded Citizens. (2709 Avenue E, East, POB 6109, Arlington, Texas 76011). Promotes the advancement of techniques to prevent mental retardation and assists programs for professionals within the field. Family counseling and a number of publications to help the family and professional are also available.

National Information Center for Special Educational Materials. (University of Southern California, University Park, Los Angeles, California 90007). Provides information to help the media improve materials and be aware of educational and technological resources for handicapped learners. Publishes newsletter, *Appropos*, to alert the public to their findings.

National Easter Seal Society. (2023 West Ogden Avenue, Chicago, Illinois 60612). (Formerly National Easter Seal Society for Crippled Children and Adults). Provides extensive diagnostic services, treatment, and comprehensive rehabilitation programs; sheltered workshops; homebound programs; preschool programs; recreational activities; psychiatric services; and special equipment. Educational programs are offered to families of handicapped people; research is conducted in prevention and treatment of physical handicaps. Informational material includes pamphlets and books for professionals and laymen, covering such topics as cerebral palsy, home care of the stroke patient, brain injury and learning disorders in children, and rehabilitation of physically handicapped persons.

National Multiple Sclerosis Society. (205 East 42nd Street, New York, New York 10017). A national voluntary agency dedicated to finding cause, prevention, and cure for multiple sclerosis. Helps finance research programs and provides professional education, public information, and community and patient services through local chapters.

National Rehabilitation Association. (1522 K Street, N.W., Washington, D.C. 20005). Promotes rehabilitation legislation, research, and skill training techniques. Holds conferences as a forum for the discussion of problems related to the field of rehabilitation. Publications include *The Journal of Rehabilitation* and two newsletters.

National Therapeutic Recreation Society. (1601 N. Kent Street, Arlington, Virginia 22209). A branch of the National Recreation and Park Association, NTRS is a professional society concerned with the promotion of recreation and leisure services for handicapped persons. Publishes the *Therapeutic Recreation Journal.*

Rehabilitation International—U.S.A. (20 West 40th Street, New York, N.Y. 10018). An independent, non-profit organization mandated to disseminate international rehabilitation information and services to the U.S. rehabilitation community and to mobilize U.S. resources to support international service projects throughout the world.

United Cerebral Palsy Association, Inc. (66 East 34th Street, New York, New York 10016). Provides guidance, instruction, and general assistance to community agencies, infant care centers, vocational training programs, and research and professional training programs. Publishes material relating to cerebral palsy for the handicapped person and his family, the professional, and the interested layman.

LOCAL RESOURCES

The Council of Social Agencies, Welfare Department, family service agency, town hall, local private agencies serving the blind, local offices of the state agency for the visually handicapped, State Health Department, and ophthalmologist or family physician are all sources of information on local services. Services and/or financial aid related to children are available from such agencies as the Health Department, Welfare Department, Social Security District Office, Council of Social Agencies, and State Commission or Board for Crippled Children.

Information on education for handicapped children may be obtained from the local Board of Education; in larger cities the Department of Special Education is responsible for the education of physically and mentally handicapped children. In either case, school officials will evaluate the child's abilities and make appropriate educational recommendations through consultation with the parents. The Council for Exceptional Children, Department of the National Education Association (1920 Association Drive, Reston, VA 22091); Porter Sargent's *Directory for Exceptional Children* (available at most libraries); United Cerebral Palsy Associations, and chapters of the National Association for Retarded Children and the National Society for Crippled Children and Adults all may be able to recommend appropriate education facilities or resources.

A number of voluntary organizations and parent groups may provide selected services to handicapped children and adults. Religious charities, for example, may make available reading material, special equipment, holiday camps, and guidance and volunteer services; local Lions Clubs have similar programs in addition to donating teaching, research, and self-help equipment to private individuals and organizations serving visually impaired children and adults.

Physicians may arrange for a nurse or nurse's aide from the Visiting Nurse Association to visit a child in ill health; alternatively, the family can seek volunteer assistance from local church groups, Red Cross, Salvation Army, or community organizations. Should getting to the local hospital prove difficult, the hospital social services department may be able to arrange for private transportation or volunteer assistance. Special transportation services in the community may also be located through the Council of Social Agencies, the Town Hall, or State Commission for the Blind.

RECREATIONAL RESOURCES

Information and Research Utilization Center (IRUC). American Alliance for Health, Physical Education, Recreation, and Dance. (1201 16th Street, N.W., Washington, D.C. 20036). Supplies information on services to the handicapped.

National Arts and the Handicapped Information Service—Arts and Special Constituency Project—National Endowment for the Arts. (2401 E Street, N.W., Washington, D.C. 20506). Information and referral service concerned with the implementation of Sec. 504 of the Rehabilitation Act of 1973. Provides information which can make arts programs and facilities more accessible to handicapped people.

National Committee/Arts for the Handicapped (NCAH). (1701 K Street, N.W., Suite 801, Washington, D.C. 20006). Fosters growth of arts programs for handicapped children and youth, provides training and technical assistance for teachers, accredits model programs, and funds training programs and other projects.

RECREATIONAL PRODUCTS

American Foundation for the Blind. (15 West 16th Street, New York, New York 10011). Catalog, *Products for People with Vision Problems*, lists more then 400 items, including recreational products.

American Printing House for the Blind. (1839 Frankfort Avenue, P.O. Box 6085, Louisville, Kentucky 40206). Catalog lists many recreational products for children with impaired vision.

Royal National Institute for the Blind. (224 Great Portland Street, London W1N 6AA, England). Catalog of apparatus and games for visually impaired persons.

Science for the Blind. (Box 385, Wayne, Pennsylvania 19087). Catalog includes recreation aids and materials for visually impaired persons.

Telephone Pioneers. (Call local telephone company for address). The Pioneers produce many sound device products (e.g., audible balls) and repair talking book machines.

Traylor Enterprises. (839 N.E. Loop 410, San Antonio, Texas 78209). Produces sound device products for visually impaired people (e.g., audible frisbee).

LOW VISION RESOURCES

For details on where and how to obtain low vision aids, contact the child's ophthalmologist or low vision clinic or write to the American Optometric Association, 7000 Chippewa Street, St. Louis, Missouri 63119. Low vision clinics are also listed in the *American Foundation for the Blind Directory of Agencies Serving the Visually Handicapped in the U.S.*, 21st edition.

LARGE PRINT RESOURCES

Large print books can be obtained from commercial book stores, public libraries, and private voluntary organizations. A directory of large type publishers, *Large Type Books in Print*, is published by the R.R. Bowker Company (1180 Avenue of the Americas, New York, New York 10036).

SELECTED PERIODICALS

American Rehabilitation. (Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402). Official publication of the Rehabilitation Services Administration (replacing *Rehabilitation Record* and *The Social and Rehabilitation Record*); contains articles of interest to professionals who work with disabled people.

Blindness Annual. (American Association of Workers for the Blind, 1511 K Street, N.W., Washington, D.C. 20005). Of interest to both layman and professional. Covers topics on the entire field of blindness and visual impairment.

Education of the Visually Handicapped. (919 Walnut Street, 4th Floor, Philadelphia, Pennsylvania 19107). The official publication of the Association for Education of the Visually Handicapped, this magazine is for educators of visually handicapped children.

Exceptional Children. (Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22901). Articles of interest to educators of handicapped children.

The Exceptional Parent. (P.O. Box 964, Manchester, New Hampshire 03105). Of interest to both laymen and professionals; focuses on physical handicaps and learning disabilities of children.

Focus on Exceptional Children. (Love Publishing Co., P.O. Box 22353, 6635 E. Villanova Place, Denver, Colorado 80222). Focuses on the education of children with special learning needs.

Journal of Learning Disabilities. (Professonal Press, Inc., 101 E. Ontario Street, Chicago, Illinois 60611). Professional journal.

Journal of Visual Impairment and Blindness. (American Foundation for the Blind, 15 West 16th Street, New York, New York 10011). A professional journal for individuals in the field of blindness and visual impairment, containing articles on a wide variety of subjects concerning both practice and research.

Journal of Rehabilitation. (1522 K Street, N.W., Washington, D.C. 20005). The official publication of the National Rehabilitation Association; a professional magazine concerned with the rehabilitation field in general.

Rehabilitation Literature. (National Easter Seal Society, 2023 West Ogden Avenue, Chicago, Illinois 60612). For professionals and students in all areas of rehabilitation; describes books, pamphlets, and periodicals of interest to people working with handicapped children and adults; includes feature articles.

Rehabilitation World. (20 West 40th Street, New York, New York 10018). Primarily for professionals in the field of rehabilitation. Covers national and international news and information; provides an overview of the wide range of rehabilitation services available.

Sight Saving Review. (The National Society for the Prevention of Blindness, 79 Madison Avenue, New York, New York 10016). Of interest to both laymen and professionals; covers topics related to the prevention of blindness.

Teaching Exceptional Children. (Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22901). Articles of interest to educators of handicapped children.

Therapeutic Recreation Journal. (1601 North Kent Street, Arlington, Virginia). A quarterly publication of the National Therapeutic Recreation Society, a branch of the National Recreation and Park Association. Includes research findings, philosophical concerns, and professional development issues related to the field of therapeutic recreation.

SELECTED READING

Alonso, Lou, & Wellel, Janet, Eds. *Physical Education and Recreation for the Visually Handicapped.* Report of a national workshop held at Michigan State University, 1964. East Lansing: Educational Publication Service, Michigan State University, 1967.

American Alliance for Health, Physical Education, Recreation, and Dance. *Materials on Creative Arts for Persons with Handicapping Conditions.* Washington, D.C.: The Alliance, 1977.

Bauman, Mary K. *Blindness, Visual Impairment, Deaf-Blindness: Annotated Listing*

of the Literature, 1953-75. Philadelphia: Temple University Press, 1976. 537 pp.
Lists nonmedical literature related to visual impairment for readers seeking information in more depth than is found in the typical newspaper or popular magazine.

Chalkley, Thomas. *Your Eyes.* Springfield, IL: Charles C Thomas, 1974.
A book for paramedical personnel and the lay reader.

Cooperative Extention Services. *4-H Leaders Guide.* University Park, PA: Pennsylvania State University.
Includes "Let's Look at 4-H and Handicapped Youth," and "Recreation and Handicapped Youth."

Cutsforth, Thomas D. *The Blind in School and Society.* New York: American Foundation for the Blind, 1951. 269 pp.
Most recent edition of a book first published in 1933, which has become a classic on the psychology of the blind.

Fraiberg, Selma. *Insights from the Blind: Comparative Studies of Blind and Sighted Infants.* New York: Basic Books, 1977. 297 pp.
Presents case histories of blind babies, discussing what parents and educators must do to promote optimum child development.

Geddes, Dolores. *Physical Activities for Individuals with Handicapping Conditions.* St. Louis: C. V. Mosby Company, 1978.

Heritage Conservation and Recreation Services. *A Guide to Designing Accessible Outdoor Recreation Facilities.* Ann Arbor: U.S. Department of the Interior, 1980.

Koestler, Frances. A. *The Unseen Minority: A Social History of Blindness in the United States.* New York: David McKay, 1976. 559 pp.
Examines efforts in the U.S. to provide services to better the lives of blind people from the social, legislative, and personal points of view.

Kratz, Laura Elizabeth. "Movement Without Sight," Palo Alto: Peek Publications, 1973.

Lowenfeld, Berthold. *The Changing Status of the Blind: From Separation to Integration.* Springfield, IL.: Charles C Thomas, 1975. 336 pp.
A history of blindness and blind people, including the social, economic, and legislative factors that have led to the integration of visually impaired people into society.

Lowenfeld, Berthold. *The Visually Handicapped Child in School.* New York: John Day, 1973. 348 pp.
Discusses the history and current status of the education of visually handicapped children.

Lydon, William T., & McGraw, Loretta M. *Concept Development for Visually Handicapped Children.* New York: American Foundation for the Blind, 1973.

National Society to Prevent Blindness. *Teaching about Vision,* New York: the Society, 1972.

Rusalem, Herbert. *Coping with the Unseen Environment: An Introduction to the Vocational Rehabilitation of Blind Persons.* New York: Teachers College Press, 1972. 361 pp.

Swallow, Rose-Marie. *Assessment for Visually Handicapped Children and Youth.* New York: American Foundation for the Blind, 1977. 82 pp.

Ulrich, Sharon. *Elizabeth.* Ann Arbor: University of Michigan Press, 1972. 122 pp.
The mother of a blind child describes her daughter's first five years, including early child development and cognitive learning.

DIRECTORIES

American Foundation for the Blind Directory of Agencies Serving the Visually Handicapped in the U.S. (American Foundation for the Blind, 15 West 16th Street, New York, New York 10011). Provides names, addresses, and programs of most state, national, and federal organizations for the visually impaired. Includes low vision services. Published every other year.

Directory of Exceptional Children. (Porter Sargent, 11 Beacon Street, Boston, Massachusetts 02108). Lists a wide range of programs for training and educating the exceptional child.

Directory of Facilities for Learning Disabled and Handicapped. Carette Ellington and James Cass (Harper & Row, 1972). Provides a comprehensive listing of agencies and organizations concerned with programs and services for learning disabled people.

Directory of Organizations Interested in the Handicapped. (The Committee for the Handicapped, People to People Program, Suite 610, LaSalle Building, Connecticut Avenue and L Street, Washington, D.C. 20036). Provides a comprehensive listing of organizations serving handicapped people.

Directory of Programs and Services for the Deaf. (American Annals of the Deaf, 5034 Wisconsin Avenue, N.W. Washington, D.C. 20016).

INFORMATION SERVICES

Adapted from "Information Services Relevant to the Field of Blindness" by Mona K. Lewis, *Journal of Visual Impairment and Blindness*, **74**(8).

AOI (Accent on Information.) (Accent on Living, Accent on Information, Gillum Road & High Drive, P.O. Box 700, Bloomington, Illinois 61701, [309] 378-2961).

Data Base: Information on 4,000 areas of interest to handicapped persons, their relatives, and professionals is maintained in 1,000 files as well as in computer-readable form. Sources of information include manufacturers' catalogs, news releases, specialized publications, and reports of solutions to dailing living programs obtained from handicapped individuals.

Computer Based Services: Searches are made in response to specific requests; output is in printed form.

Cost: Search includes 25 citations at a cost of $6.00, prepaid. Additional citations cost 4¢ each. This fee can be waived for any disabled individual who cannot afford to pay.

Use: AOI provides printed forms for search requests; send a self-addressed, stamped envelope.

Publications: Accent on Living (quarterly), includes flyer, "Accent on Information Progress Report: Update on the Collection." Other publications.

Microfiche Photocopy: Printouts are usually accompanied by photocopies of the documents.

ERIC (Educational Resources Information Center). (U.S. National Institute of Education, ERIC Clearinghouse on Handicapped and Gifted, Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091. Toll free: [800] 336-3738; Virginia residents call collect: [703] 620-3660).

Data Base: This collection contains CEC and ERIC materials. Annual input is approximately 1,400 documents and 3,000 journal articles. To date there are 9,000 doc-

uments and 18,000 journal articles on microfiche. The complete ERIC collection is on microfiche as are 200 periodical subscriptions.

Computer Based Services: On-line literature search of data bases are available through Lockheed/DIALOG and Bibliographic Retrieval Services, Inc. (BRS). Terminals dealing with specific subjects are located at the following clearinghouses:

Career Education: Northern Illinois University, 204 Gabel Hall, DeKalb, Illinois 60115.

Counseling and Personnel Services: University of Michigan, 2108 School of Education Building, Ann Arbor, Michigan 48104.

Early Childhood Education: University of Illinois, College of Education, 805 West Pennsylvania Avenue, Urbana, Illinois 61801.

Education Management: University of Oregon, Eugene, Oregon 97403.

Higher Education: George Washington University, 1 Dupont Circle, Washington, D.C. 20036.

Information Resources: Stanford University, School of Education, SCRDT, Stanford, California 94305.

Junior Colleges: University of California, 96 Powell Library Building, Los Angeles, California 90025.

Languages and Linguistics: Center for Applied Linguistics, 1611 N. Kent Street, Arlington, Virginia 22209.

Reading and Communication Skills: National Council of Teachers of English, 1111 Kenyon Road, Urbana, Illinois 61801.

Rural Education and Small Schools: New Mexico State University, Box 3AP, Las Cruces, New Mexico 88003.

Science Mathematics and Environmental Education: Ohio State University, 400 Lincoln Tower, 1800 Cannon Drive, Columbus, Ohio 43210.

Social Studies/Social Science Education: 855 Broadway, Boulder, Colorado 80302.

Teacher Education: American Association of Colleges for Teachers Education, 1 Dupont Circle, Suite 616, Washington, D.C. 20036.

Tests, Measurements, and Evaluation: Educational Testing Service, Princeton, New Jersey 08540.

Urban Education: Teachers College, Columbia University, Box 40, 525 W. 120th Street, New York, New York 10027.

Cost: Search (50 references/abstracts, one data-base, either CEC or ERIC) costs $27.50, CEC members; $38.50 non-members. Search (50 references/abstracts, both data bases) costs $44, CEC members; $55 non-members.

Use: To enter information send two copies of the documents in unbroken dark print on a white background. Allow at least one month for a reply. To obtain information (search) call toll free: (800) 336-3738.

Publications: Resources in Education (RIE), a monthly abstract journal. Entries are indexed by subject, author, and institution. Subscriptions are available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. *Current Index to Journals in Education (CIJE)*, a monthly publication citing

articles from more than 700 education and education-related journals and periodicals. Subscriptions are available from Macmillan Publishing, 866 Third Avenue, New York, New York 10022.

Microfiche Photocopy: Most documents abstracted in RIE are available from ERIC Document Reproduction Service, P.O. Box 190, Arlington, Virginia 22210.

MEDLARS (Medical Literature Analysis and Retrieval System). (MEDLINE [MEDLARS On-Line]: U.S. National Library of Medicine, [NLM], MEDLARS, 8600 Rockville Pike, Bethesda, Maryland 20014. [301] 296-6217).

Data Base: MEDLARS indexes articles from biomedical journals received by NLM. There are machine-readable data references to 3,000,000 articles from approximately 3,000 serial titles dating from 1964.

Computer Based Services: In addition to MEDLINE, 12 other on-line data bases are available. For further information contact NLM. Terminals are at the following regional libraries:

New England Regional Medical Library Service (NERMLS), (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont): Francis A. Countway Library of Medicine, 10 Shattuck Street, Boston, Massachusetts 02115.

New York and New Jersey Regional Medical Library: New York Academy of Medicine Library, 2 East 103 Street, New York, New York 10029.

Mid-Eastern Regional Medical Library Service (MERMLS), (Pennsylvania, Delaware): Library of the College of Physicians, 19 South 22 Street, Philadelphia, Pennsylvania 19103.

Mid-Atlantic Region (Virginia, West Virginia, Maryland, Washington, D.C., North Carolina): National Library of Medicine, 8600 Rockville Pike, Bethesda, Maryland 20014.

East Central Regional Medical Library (KORML), (Kentucky, Michigan, Ohio): Wayne State University Medical Library, 4325 Brush Street, Detroit, Michigan 48201.

Southeastern Regional Medical Library Program (SERMLP), (Alabama, Florida, Georgia, South Carolina, Tennessee, Puerto Rico): A. W. Calhoun Medical Library, Emory University, Atlanta, Georgia 30322.

Midwest Regional Medical Library (Illinois, Indiana, Iowa, Minnesota, North Dakota, Wisconsin): John Crerar Library, 35 West 33 Street, Chicago, Illinois 60616.

Midcontinental Regional Medical Library Program (MCRMLP), (Colorado, Kansas, Missouri, Nebraska, South Dakota, Utah, Wyoming): University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, Nebraska 68105.

South Central Regional Medical Library Program (TALON), Arkansas, Louisiana, New Mexico, Oklahoma, Texas): University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, Texas 75235.

Pacific Northwest Regional Health Science Library, (Alaska, Idaho, Montana, Oregon, Washington): University of Washington, Health Sciences Library, Seattle, Washington 98195.

Pacific Southwest Regional Medical Library Service (PSRMLS), (Arizona, California, Hawaii, Nevada): University of California at Los Angeles, School of Medicine and Biomedical Library, Center for the Health Sciences, Los Angeles, California 90024.

There are also remote terminals in more than 600 hospitals, medical schools, and medical research institutions throughout the country.

Cost: The price of searches varies from one institution to the next.

Use: For information contact the nearest regional library.

Publications: Index Medicus (monthly), *Cumulated Index Medicus* (annual), *List of Journals Indexed in Index Medicus* (annual). Other publications. All publications are available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Microfiche Photocopy: NLM maintains about 13,000 reels of microfilm and 1,000 motion pictures and filmstrips. Microproduction services are available.

NTIS (National Technical Information Service). (U.S. National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. [703] 557-4650).

Data Base: Includes more than one million titles, with over 150,000 documents available from current stock. Annual input of 70,000 items is from documents and data files of the U.S. government and other sources. The collection covers the sciences, business, library and information science, and social and behavioral science.

Computer-Based Services: The NTIS Bibliographic Data File is available on magnetic tape for lease. The file contains abstracts of government-backed research and analysis, from which the *Weekly Abstracts* and *Government Reports Announcement and Index* are prepared. This data is also available on-line through Lockheed/DIALOG and System Development Corporation. It offers access to 680,000 research reports dating from 1964.

Use: The Information Analysis Branch serves as a reference center. It compiles general subject bibliographies and performs NTIS document searches throughout the NTISearch, an on-line, interactive retrieval system. Call (703) 557-4642 for NTISearch.

Cost: $100.00-100 research summaries, call (703) 557-4642 (unpublished searches), $28.00-100 research summaries, 1200 published services available.

Publications: Weekly Government Abstracts (monthly), *Government Reports Announcements and Index (GRA&I)* (biweekly), *NTIS Tech Notes* (biweekly), published searches in 11 areas, selected bibliographies consisting of citations from NTIS data base and the Engineering Index data base; approximately 1,000 are available), *NTIS Directory of Computerized Data Files, Software, Related Technical Reports.* Lists of other publications and services are available on request.

Microfiche Photocopy: All documents are available on microfiche in 4 × 6 inch format. Microreproduction services include Selected Research in Microfiche (SRIM) at 85¢/title in selected areas; SRIM Profiles in custom designed for specific needs, 85¢ for each report or a once a year computer service charge of $100.

RESOURCES AVAILABLE FROM THE AMERICAN FOUNDATION FOR THE BLIND

Multimedia

Good Start! A Multimedia Approach to Meeting the Needs of Visually Handicapped Students. This package includes a film, six film strips, and publications that meet the specific information needs of several groups within the local education agency: the administrator, the classroom teacher, the physical educator, the psychologist or counselor, and the parent. It includes the film, *No Two Alike*, and the filmstrip, *One of the Gang*, described below, as well as a chart on "Adapting Physical Education and Recreation Activities for the Visually Handicapped Student."

FILMS

No Two Alike (1979). 19 minute, 16 mm color. This film describes the various support and special aids available to help local education agency staff provide the best education possible for all students. It shows visually handicapped children of all ages

and ethnic groups participating alongside their sighted peers in classroom as well as extracurricular settings. (The film is part of the *Good Start!* package.)

Not Without Sight (1973). 19½ minutes, 16mm color. This film defines the major types of severe visual impairment, illustrates with animation their causes, and shows how those with severe impairments can and do function. *Not Without Sight* depicts the vision of those with impairments as they see the world.

One of the Gang (1979). 12-minute color filmstrip with accompanying cassette. Shows how physical education instructors use simple techniques and adapted sports equipment to include visually impaired youngsters in physical and recreational activities. The filmstrip also includes some simple exercises used to help younger visually impaired children develop motor skills and spatial concepts. (This filmstrip is part of the *Good Start!* package).

The Seven Minute Lesson (1978). 7 minutes, 16mm color. Carl, a blind lawyer, and his friend Sue, go shopping for a sports coat for Carl. On the way the audience sees how Sue acts as an experienced sighted guide. Demonstrated techniques include climbing stairs, going through a doorway, reversing direction, changing sides, managing in a narrow aisle, and seating.

What Do You See When You See A Blind Person? (1971). 13½ minutes, 16mm color. With a light touch, this film demonstrates the right and wrong ways of dealing with blind people in various situations.

PAMPHLETS

Single copies of these pamphlets are available free of charge. Larger amounts are available at cost. Free and priced publications are listed in the American Foundation for the Blind's free *Catalog of Publications*, which includes an order form.

Blindness and Diabetes. 1975. 16pp. Provides information to help the blind diabetic who wishes to live independently and learn to care for his condition. Also for friends and family of the newly blinded person who wants to know how to work with an individual who is both blind and diabetic.

Cataracts and Their Treatment. Arthur S. Freese. 1977, 24 pp. A Public Affairs Committee Pamphlet also distributed by AFB. Discusses what cataracts are, types of cataracts, warning signs and symptoms, surgery and post-surgery.

Dog Guides for the Blind. 1969. 6 pp. This pamphlet describes briefly the history of dog guides and the selection and training of both user and guide.

Environmental Modifications for the Visually Impaired. 1977. 14 pp. Provides suggestions for modifying the environment to better meet the needs of the visually impaired.

Facts About Blindness and Visual Impairment. 1980. 13 pp. Provides basic information about visual impairment, including definitions and causes. Gives addresses of state agencies that provides services to visually impaired persons.

Films About Blindness. 1979. A listing of films about blindness that may be rented or purchased from The American Foundation for the Blind.

How Does a Blind Person Get Around. 1973. 16 pp. An explanation for the general public of orientation and mobility training. Illustrated with photographs.

Products for People with Vision Problems. Annual. Formerly the *Catalog of Aids and Appliances*, this catalog lists more than 400 products available from AFB. These include kitchen utensils, medical devices, tools, games, watches, and other items.

Recreation and the Blind Adult. 1971. 10 pp. Answers many of the most common questions about the participation of blind adults in recreation activities, many of which will be applicable with older children. Explains activities in which adaptations are necessary and those that need none.

Recreation for Disabled Persons. Elizabeth Ogg. 1979. 29 pp. A Public Affairs Committee Pamphlet also distributed by AFB. Discusses how disabled persons can participate in sports, the arts, and other recreational pursuits.

Understanding Braille. 1968. 12 pp. This pamphlet describes braille in general—how it works, how it started, how it is read and written, and the different grades.

What Can We Do About Limited Vision? Irving R. Dickman, 1973. 28 pp. A Public Affairs Committee Pamphlet also distributed by AFB. Discusses the various eye problems that can cause limited vision and describes and explains the kinds of services and aids available to persons with visual handicaps.

When You Have a Visually Handicapped Child in Your Classroom: Suggestions for Teachers. Anne Lesley Corn and Iris Martinez. 1977. 28 pp. Practical suggestions for the teacher who has a visually handicapped pupil in a regular classroom. Includes advice about attitudes, mobility, and information on special devices, resources, and personnel.

REFERENCES ON RECREATION AND HOBBIES FOR THE BLIND M. C. MIGEL MEMORIAL LIBRARY

The M. C. Migel Memorial Library of the American Foundation for the Blind contains more than 35,000 titles and provides a variety of informational services. A substantial number of items in the library collection may be borrowed in person, by mail, or by telephone when the borrower is unable to purchase or borrow the materials elsewhere. Materials circulate within the continental United States and through inter-library loan in Canada. As many as four titles may be borrowed at one time for a three-week period.

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Glossary

Accessibility — Deals with meeting minimum standards of architectural design so that barriers do not exist for persons with handicapping conditions.

Activity analysis — A systematic procedure used to identify the elements of an activity which can contribute to the desired program objectives.

Adventitiously blind — A condition of blindness that occurs to people who have lost vision at some time after the first five years of life—the person usually has some visual memory.

Advocacy — Working in support of the rights and needs of others, e.g., working in support of handicapped people.

Albinism — A hereditary condition in which pigment is lacking; causes light sensitivity in the eye.

Ambylopia — A condition in which there is diminished vision in one eye because of lack of use. Sometimes referred to as a "lazy eye."

Aqueous humor — The fluid in the anterior chamber of the eye which fills the space between the cornea and the lens.

Assessment — The process of gathering decision-making information about an individual; to be used in developing an individualized program plan.

Binocular vision — The ability to see with both eyes.

Cataracts — A condition in which the lens of the eye becomes opaque; leads to decreased vision.

Central vision — What one is conscious of seeing when looking directly at something.

Ciliary muscles — The muscles that contract and dilate the pupil of the eye.

Clue — Any sound, odor, temperature, tactile or visual stimulus that affects the senses and can readily be converted in determining one's position or a line of direction.

Communication — Verbal and nonverbal transmission of ideas, feelings, beliefs, and attitudes which permits a common understanding between the sender of the message and the receiver.

Cones — The photoreceptor cells in the retina that are sensitive to color and fine detail.

Congenitally blind — A condition of blindness that is present at birth or during the first five years of life; the congenitally blind person does not have visual memory.

Continuum — A continuous whole, the parts of which cannot be completely separated, such as the "continuum of care" in the delivery of recreation services for the handicapped.

Cornea — The clear, transparent anterior portion of the eye which covers the pupil; sometimes it is referred to as the "window of the eyeball."

Cue — Any sound, odor, temperature, tactual or visual stimulus affecting the senses which will elicit an immediate or automatic response.

Dependency — Over-reliance on another for physical or psychological support.

Diabetic retinopathy — A complication of diabetes which causes the small blood vessels of the eye to burst and hemmorhage; it causes fluctuating vision and can lead to total vision loss.

Disabled — Refers to an individual, who, because of impairments, is limited or restricted in executing some skills, performing tasks, or participating in certain activities, movements, or patterns.

Diversionary activities — Those activities or actions that are designed to divert the mind from care, business, or study, thus causing relaxation and/or amusement.

Environmental Awareness — Being alert to the clues and cues which may be found in an area or situation. A term used in orientation and mobility.

Enucleation — The surgical removal of the eye from the socket.

Evaluation — A process used to determine the effectiveness of an activity, program, or intervention. It is usually divided into formative (a process-oriented evaluation) and summative (a terminal evaluation).

Gait — Manner or rate of walking.

Glaucoma — A condition in which pressure of fluid in the anterior chamber of the eye increases; it can lead to irreversible optic nerve damage. Vision loss is gradual, but the condition may lead to total loss of vision.

Goals — General statements that provide indication of the direction desired in a program or activity; goal statements tend to be much less specific than objectives.

Group — A collection of individuals who coordinate their activities toward a common goal or who cooperate to fulfill some purpose.

Handicapped — Refers to individuals who because of impairments and disabilities are adversely affected psychologically, emotionally, or socially.

Hyperopia — A condition in which the eyeball is too short and the image focuses behind the retina. Also refers to farsightedness.

Impaired — Refers to individuals who have identifiable organic and/or functional conditions—some part of the body is missing, a portion of an anatomical structure is gone, or one or more parts of the body do not function properly or adequately. The condition may be permanent, as in amputation, or temporary, as in learning disabilities or emotional problems.

Intervention — A systematic plan of action designed to bring about change in a client; usually associated with therapeutic recreation.

Kinesthetic sense — Knowledge of the movement and position of the body; sensory experience derived from human movement.

Legally blind — Measured visual acuity of no greater than 20/200 in the better eye with the best possible correction, or a visual field of less than an angle of 20 degrees.

Lens — The portion of the eye lying behind the pupil; it bends the light rays to focus on the retina, which is in the back of the eyeball.

Macula — The highly sensitive cone area of the retina; it lies in the center posterior portion of the eye.

Mainstreaming — The concept of integration of handicapped persons into an environment that is least restrictive in terms of optimal independent functioning (identified with P.L. 94-142).

Mobility — The capacity, the readiness, and the facility to move. The ability to move within one's environment.

Monocular vision — Seeing with only one eye or using alternate eyes.

Myopia — A condition in which the eyeball is too long and the image focuses short of the retina. It is also known as nearsightedness.

Near point acuity — Ability to see clearly at close range.

Nystagmus — A rapid, rhythmic, side-to-side movement of the eyeball, which causes difficulty in focusing.

Objective — Provides specific information on the desired outcome of a program, activity, or intervention.

Ophthalmologist — A doctor of medicine who has specialized in diagnosis and treatment of disorders and diseases of the eye.

Optic nerve — The main nerve to the eye; connects the retina to the brain.

Optometrist — A specialist (doctor of optometry) who is trained and licensed to perform visual analysis, diagnose disease, prescribe lenses and/or optical aids for low vision, and perform therapy to correct and/or improve visual functioning.

Orientation — The process of utilizing the remaining senses in establishing one's position and relationship to all other significant objects in one's environment. The collection and organization of information concerning the environment and one's relationship to it.

Partially sighted — Having a visual acuity of 20/70 or less in the better eye after best possible correction and being able to use residual vision as the principal channel of learning.

Peripheral vision — Side vision, or the ability to see objects that are around the edges of the field of vision, not in front of the eye.

Photocoagulation — A method of treatment of diabetic retinopathy in which powerful beams of light are used to seal off areas of the retina.

Pupil — That area in the center of the eye through which light is admitted.

Recreation — Refreshment of strength and spirits after work; means of play, diversion, or entertainment bringing relaxation, and enjoyment as well as a sense of "total wellness."

Retina — The innermost layer of the eye; the sensitive organ upon which the light rays are focused.

Retinal detachment — The separation of the retina from the choroid or vascular layer of the eye; causes black areas in the path of vision.

Retinitis pigmentosa — A hereditary condition leading to degeneration of the retina; usually starts with night blindness, followed by tunnel vision, and possibly total blindness.

Retrolental fibroplasia (RLF) — A thickening of the retina caused by an overabundance of blood vessels resulting from the amount of oxygen given to premature infants shortly after birth.

Rods — Photoreceptor cells in the retina of the eye, sensitive to dim light and movement.

Rubella — German measles. Contracted during early pregnancy, can cause multiple handicaps in the newborn. Impaired vision is one of the handicaps which may occur.

Sensory training — Learning to utilize the remaining senses to compensate for visual loss.

Sound localization — Determining the exact bearing or line of direction of the source of a sound.

Special populations — Those individuals who, because of physical or mental disabilities, are not normally served by public and commercial programs; includes the physically ill and handicapped, mentally retarded, mentally ill or disturbed, those with learning disabilities, the aging and delinquent or imprisoned.

Stereoscopic vision — Perception of the field of vision in three dimensions through the fusion of the images projected from each eye.

Strabismus — The failure of two eyes to focus in the same direction; the condition is caused by muscle defect and leads to difficulty with depth perception.

Tactual — Related to or experienced through the sense of touch.

Therapeutic recreation — A generic term denoting services in the field of recreation for handicapped persons. The major focus is on intervention designed to change behavior and to facilitate optimal functioning of the individual. Includes programs of remediation, restoration, and rehabilitation.

Therapy	The treatment of a disease or pathological condition; or a special type of procedure used to treat disease or injury.
Visual field	The expanse of space which can be seen at any one time; includes central and peripheral vision.
Vitreous humor	The jelly-like substance which fills the posterior portion of the globe of the eye between the lens and the retina.
Volunteer	One who enters into or offers himself for a service without the expectation of monetary remuneration.

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About the Authors

Monica Beliveau is on the faculty of the graduate program in orientation and mobility at Hunter College of the City University of New York, consultant in curriculum development to the Pennsylvania College of Optometry, and coordinator for visual impairment at a New York City nursing home. She is a certified mobility specialist and rehabilitation counselor.

Marcia J. Carter, Re.D., is an assistant professor at Indiana University and coordinator of the special populations program at Bradford Woods. She has been a recreation programmer, administrator and educator for more than 10 years and is a member of the National Registration Board of the National Recreation and Park Association.

Irving R. Dickman is a writer specializing in health and social issues. In the field of visual impairment and disabilities, he has written *Sex Education and Family Life for Visually Handicapped Children & Youth, Living with Blindness, What Can We Do About Limited Vision?* and *Independent Living: New Goal for Disabled Persons* and a documentary, "Look on the Heart" for the CBS television network.

Dava Grayson is a senior editor at the American Foundation for the Blind. She is the co-author of *Living with Impaired Vision: An Introduction* and has written many pamphlets about blindness and visual impairment including *Facts About Blindness, Recreation & The Blind Adult,* and *Louis Braille.* She is also a senior editor of the *Journal of Visual Impairment and Blindness.*

Beverly Z. Hummel is an assistant professor of recreation at West Virginia University. She is both a practitioner and an educator who has had more than 10 years of experience working with handicapped children. A member of her family is visually impaired.

Jean L. Kelley is assistant professor and program director for the Allied Health Curriculum at Hood College, Frederick, Maryland. She is the parent of a handicapped child.

Jerry D. Kelley is coordinator of therapeutic recreation at the University of Maryland. He has had many years of experience as a practitioner, administrator and educator in recreation programs for the handicapped and is currently chairman of the Recreation and Leisure Subcommittee of the President's Committee on Employment of the Handicapped.

Karen Luxton is associate director for research and development, Baruch College of the City University of New York Center for the Visually Impaired. She has been both a program director and a music director in camps, an English teacher on the junior and senior high school levels, and a counselor to handicapped college students.

Iris Martinez is a special educator with the New York City Board of Education. She has special expertise in methods of working with children with low vision and is the co-author of *When You Have a Visually Handicapped Child in Your Classroom: Suggestions for Teachers.*

Simone Rollin-Lazarus was the American Foundation for the Blind project coordinator on a federally funded leisure education grant. She has had several years of experience supervising recreation programs at the New York Association for the Blind Queens Center and is a certified master therapeutic recreation specialist.

Judith Rutberg is coordinator of the graduate program in Orientation and Mobility at Hunter College of the City University of New York. She is a certified mobility specialist and the author of many articles on mobility.

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